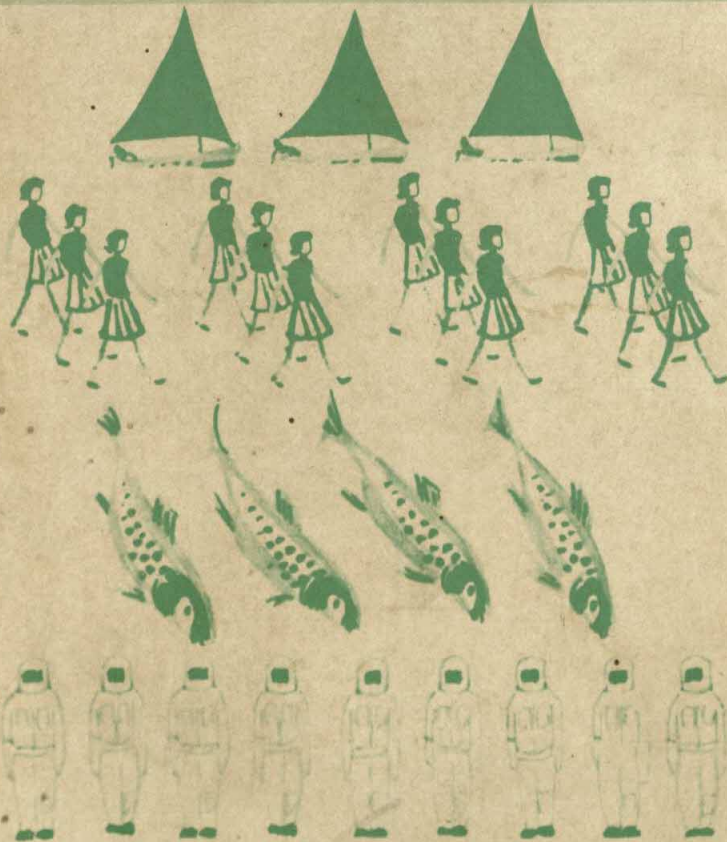
2017

PROGRAMMED ARITHMETIC WORKBOOK

ANSWER BOOK ONE

K. A. Hesse

Programmed Arithmetic Workbook

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One Edition with answers

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NOTES FOR THE TEACHER

Success, even if it is only limited, encourages in children that sense of achievement which is the key to progress. Conversely, nothing dulls their enthusiasm more quickly than needless repetition of a process which has already been mastered.

It is this principle on which the *Programmed Arithmetic Workbooks* have been planned. After any necessary assistance from the teacher in the initial stages each pupil, according to his ability, creates his own programme in mastering the number combinations. This is how the programming is achieved:

> After a few introductory pages practice is provided with a small group of number combinations, each repeated several times, and the pupils are then presented with a test line of seven sums. Success at the first attempt is followed by directions to proceed to the next test line; partial success is followed by directions leading to further practice and thence to an alternative test line. (After the first, each subsequent test line includes one sum from the previous set, so that only six new number combinations are tested at any one time.)

The sequence of practice, test, correction, practice and re-test, is interrupted at intervals by groups of revision sums. All pupils, irrespective of their ability, are led by the instructions to work on these groups. It is suggested that the brighter pupils be encouraged to use these revision groups to "work against the clock" and so improve their speed with accuracy.

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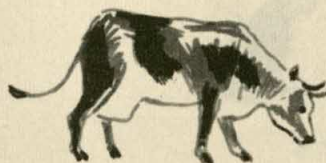
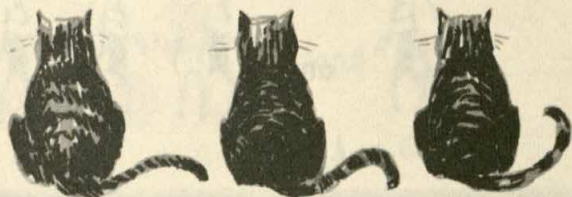
How many?

A

and

2 + 1 = 3

2 + 1 = 3
1 + 1 = 2
3 + 1 = 4
4 + 1 = 5
5 + 1 = 6
6 + 1 = 7

B

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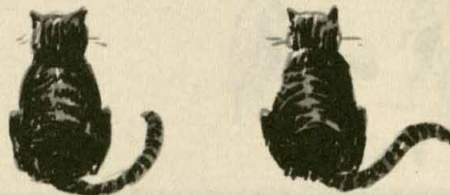
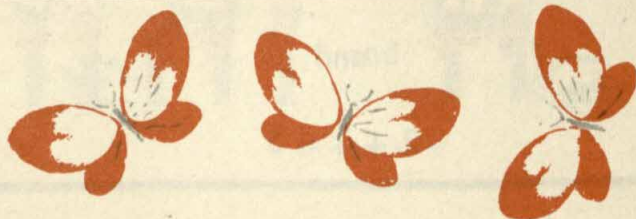

3 + 2 = 5

3 + 2 = 5
1 + 2 = 3
2 + 2 = 4
4 + 2 = 6
5 + 2 = 7
6 + 2 = 8

C

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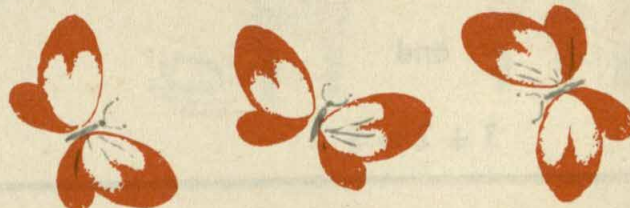
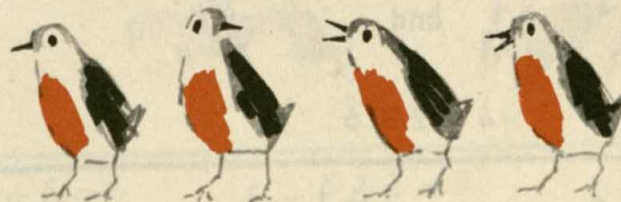

3 + 3 = 6

3 + 3 = 6
1 + 3 = 4
2 + 3 = 5
4 + 3 = 7
5 + 3 = 8
6 + 3 = 9

D

and

3 + 4 = 7

3 + 4 = 7
2 + 4 = 6
1 + 4 = 5
4 + 4 = 8
5 + 4 = 9
6 + 4 = 10

go to page 2, A

Add +

A

 and

$2 + 1 = 3$

 and

$1 + 2 = 3$

B

 and

$3 + 1 = 4$

 and

$1 + 3 = 4$

C

 and

$3 + 2 = 5$

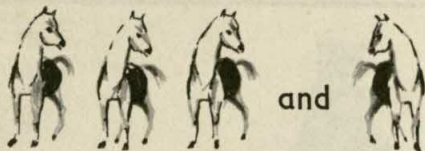
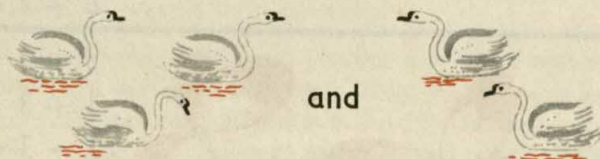
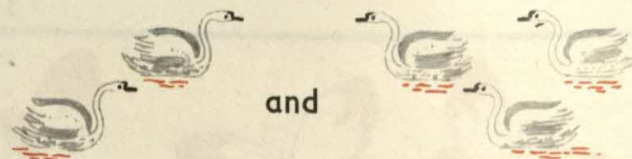
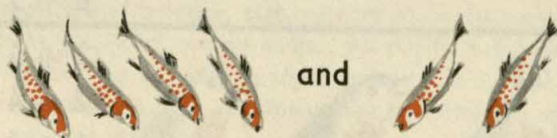
  and

$2 + 3 = 5$

D

 and

$4 + 2 = 6$

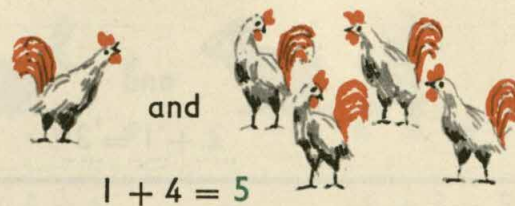
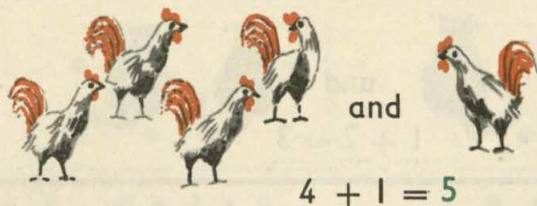
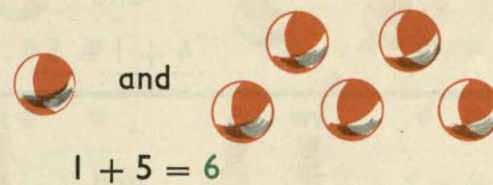
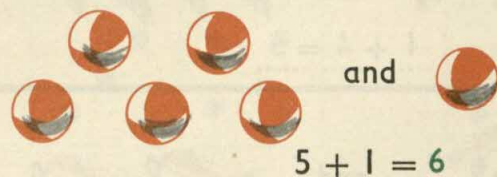
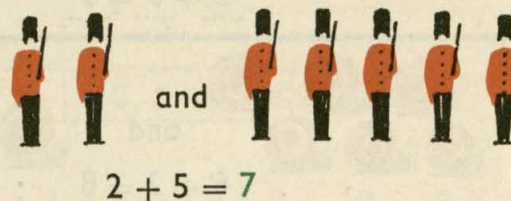
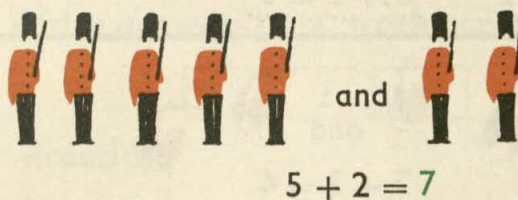
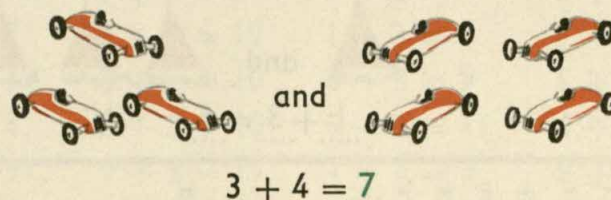
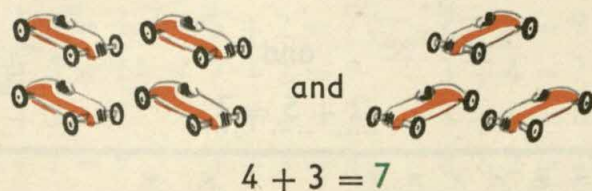
 and

$2 + 4 = 6$

E

$1 + 1 = 2$	$2 + 1 = 3$	$1 + 2 = 3$	$3 + 1 = 4$	$1 + 3 = 4$
$3 + 2 = 5$	$2 + 3 = 5$	$2 + 2 = 4$	$4 + 2 = 6$	$2 + 4 = 6$

go to page 3, A

Add +

A

and

4 + 1 = 5

and

1 + 4 = 5

B

and

5 + 1 = 6

and

1 + 5 = 6

C

and

5 + 2 = 7

and

2 + 5 = 7

D

and

4 + 3 = 7

and

3 + 4 = 7

E

2 + 3 = 5
4 + 1 = 5

5 + 1 = 6
1 + 4 = 5

1 + 5 = 6
3 + 3 = 6

5 + 2 = 7
4 + 3 = 7

2 + 5 = 7
3 + 4 = 7

go to page 4, A

Make your own sums

A

and

$2 + 1 = 3$

and

$1 + 2 = 3$

B

and

$4 + 1 = 5$

and

$1 + 4 = 5$

C

and

$2 + 3 = 5$

and

$3 + 2 = 5$

D

and

$6 + 2 = 8$

and

$2 + 2 = 4$

E

and

$1 + 3 = 4$

and

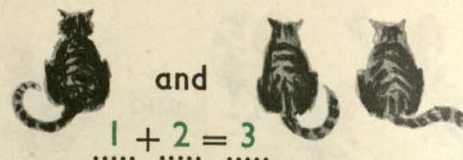
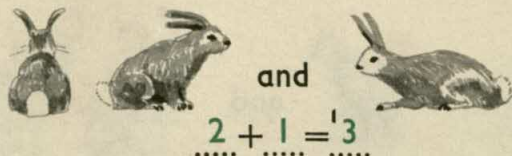
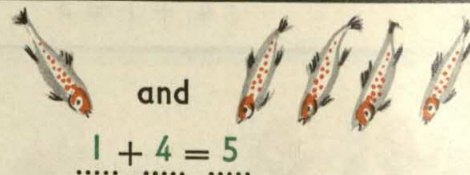
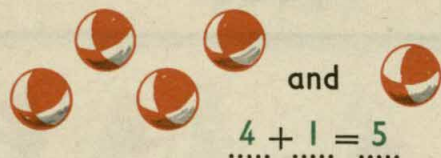
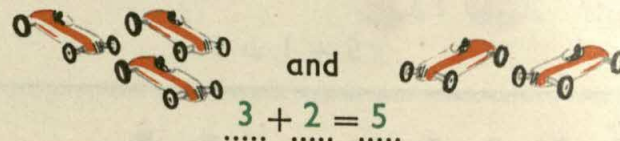
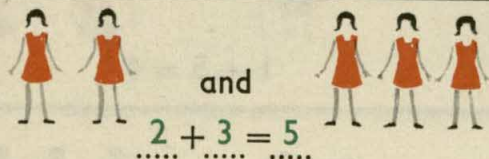
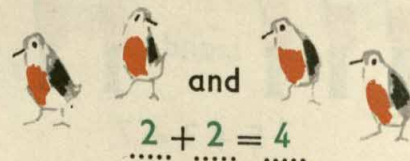
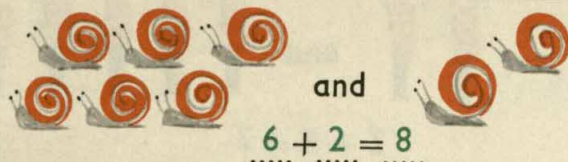
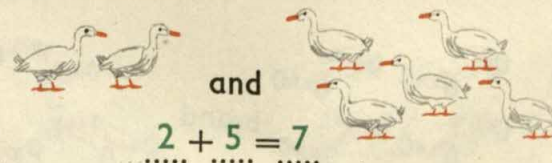
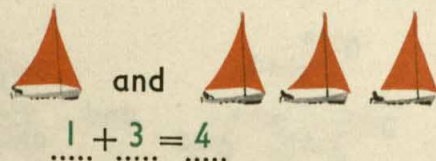
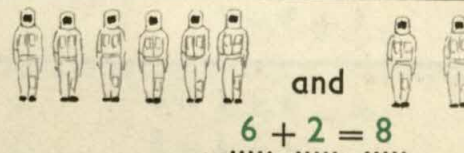
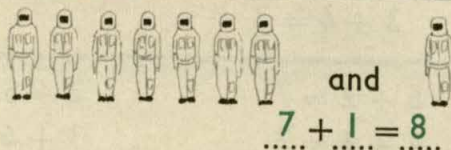
$2 + 5 = 7$

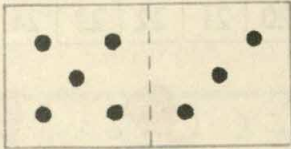
F

and

$7 + 1 = 8$

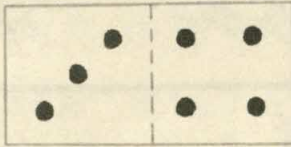
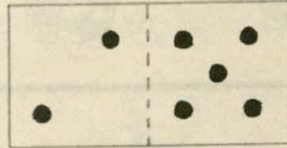
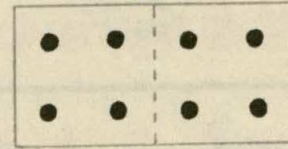
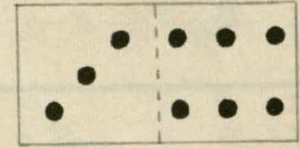
and

$6 + 2 = 8$

go to page 5, A

Make your own sums

A

$5 + 3 = 8$ $\quad$ $6 + 2 = 8$ $\quad$ $2 + 4 = 6$ $\quad$ $6 + 3 = 9$

B

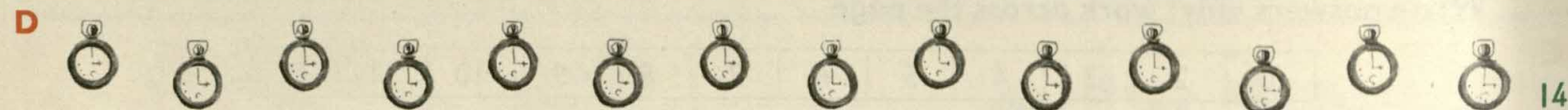
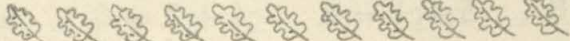
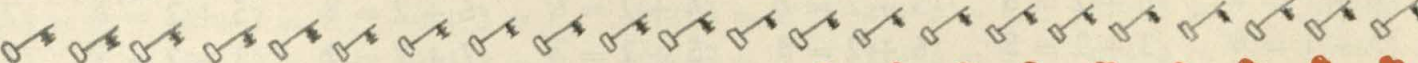
$3 + 4 = 7$ $\quad$ $2 + 5 = 7$ $\quad$ $4 + 4 = 8$ $\quad$ $3 + 6 = 9$

Write answers only: work across the page

C

1	2	3	4	5	6	7	8	9	10	11	12

Practice:

$5 + 2 = 7$	$7 + 2 = 9$	$4 + 3 = 7$	$3 + 4 = 7$	$7 + 1 = 8$	$9 + 1 = 10$	$8 + 1 = 9$
$1 + 3 = 4$	$7 + 1 = 8$	$8 + 2 = 10$	$6 + 3 = 9$	$1 + 4 = 5$	$7 + 2 = 9$	$3 + 4 = 7$
$2 + 4 = 6$	$5 + 2 = 7$	$7 + 2 = 9$	$4 + 3 = 7$	$7 + 3 = 10$	$1 + 3 = 4$	$7 + 1 = 8$
$8 + 3 = 11$	$7 + 2 = 9$	$3 + 4 = 7$	$9 + 2 = 11$	$8 + 2 = 10$	$6 + 3 = 9$	$1 + 4 = 5$
$4 + 3 = 7$	$3 + 4 = 7$	$4 + 4 = 8$	$1 + 3 = 4$	$7 + 3 = 10$	$9 + 2 = 11$	$4 + 3 = 7$
$8 + 1 = 9$	$1 + 3 = 4$	$8 + 2 = 10$	$6 + 3 = 9$	$9 + 2 = 11$	$1 + 4 = 5$	$8 + 1 = 9$
$6 + 3 = 9$	$8 + 2 = 10$	$9 + 2 = 11$	$1 + 4 = 5$	$4 + 3 = 7$	$8 + 2 = 10$	$3 + 4 = 7$
$1 + 4 = 5$	$7 + 3 = 10$	$9 + 1 = 10$	$8 + 2 = 10$	$7 + 3 = 10$	$9 + 2 = 11$	$6 + 3 = 9$
$7 + 2 = 9$	$9 + 2 = 11$	$4 + 3 = 7$	$7 + 3 = 10$	$6 + 3 = 9$	$7 + 1 = 8$	$7 + 3 = 10$

go to page 6, A

How many?

go to page 7, A

A 1 + 1 = 2 2 + 1 = 3 2 + 2 = 4 1 + 2 = 3 3 + 1 = 4 3 + 2 = 5 4 + 1 = 5

6 or 7 correct, go to B; 5 or less, practise with apparatus, then go to B

B 6 + 1 = 7 3 + 2 = 5 5 + 1 = 6 5 + 2 = 7 4 + 2 = 6 7 + 2 = 9 6 + 2 = 8

6 or 7 correct, go to page 8, C; 5 or less, go to C

C **How many in each row?**

(a) 11 (b) 13

(c) 22

(d) 20

(e) 24

What are the missing numbers?

(f) 2, 3, 4, 5, 6, (g) 7, 8, 9, (h) 6, 7, 8, 9, 10, (i) 9, 10, 11, (j) 10, 11, 12, 13, 14,

Which number comes after

(k) 3 ? 4 8 ? 9 5 ? 6 7 ? 8 12 ? 13 4 ? 5 15 ? 16 9 ? 10 11 ? 12 17 ? 18

(l) 1 ? 2 6 ? 7 12 ? 13 8 ? 9 10 ? 11 13 ? 14 19 ? 20 7 ? 8 18 ? 19 9 ? 10

go to D

D **Add + : work across the page**

2 + 1 = 3	3 + 1 = 4	4 + 1 = 5	4 + 2 = 6	3 + 2 = 5	5 + 1 = 6	5 + 2 = 7
1 + 1 = 2	6 + 1 = 7	3 + 2 = 5	6 + 2 = 8	5 + 2 = 7	7 + 1 = 8	7 + 2 = 9
3 + 1 = 4	2 + 1 = 3	2 + 2 = 4	4 + 1 = 5	4 + 2 = 6	3 + 1 = 4	3 + 2 = 5
2 + 2 = 4	6 + 2 = 8	4 + 2 = 6	5 + 2 = 7	3 + 2 = 5	6 + 1 = 7	7 + 2 = 9
4 + 2 = 6	7 + 1 = 8	7 + 2 = 9	3 + 2 = 5	2 + 2 = 4	6 + 2 = 8	5 + 2 = 7

go to page 8, A

A

$5+1=6$	$6+2=8$	$3+2=5$	$7+2=9$	$4+2=6$	$6+1=7$	$5+2=7$

6 or 7 correct, go to C; 5 or less, go to B

B **Work across the page**

$3+1=4$	$3+2=5$	$5+1=6$	$6+1=7$	$4+2=6$	$6+2=8$	$7+2=9$
$5+1=6$	$6+1=7$	$6+2=8$	$5+2=7$	$7+1=8$	$7+2=9$	$3+2=5$
$5+2=7$	$7+1=8$	$7+2=9$	$6+2=8$	$5+1=6$	$4+2=6$	$6+2=8$
$6+1=7$	$6+2=8$	$5+2=7$	$4+2=6$	$6+2=8$	$5+2=7$	$7+2=9$
$5+1=6$	$3+2=5$	$6+2=8$	$5+2=7$	$7+2=9$	$3+2=5$	$4+2=6$
$6+2=8$	$7+2=9$	$5+1=6$	$4+2=6$	$6+1=7$	$5+2=7$	$7+2=9$
$5+2=7$	$6+2=8$	$7+2=9$	$6+2=8$	$4+2=6$	$7+2=9$	$5+2=7$

go to C

C

$7+1=8$	$8+1=9$	$7+2=9$	$8+2=10$	$9+1=10$	$1+3=4$	$9+2=11$

6 or 7 correct, go to page 9, A; 5 or less, go to D

D **Work across the page**

$3+1=4$	$1+3=4$	$3+2=5$	$5+2=7$	$6+2=8$	$7+1=8$	$4+2=6$
$5+1=6$	$7+1=8$	$7+2=9$	$1+3=4$	$8+1=9$	$8+2=10$	$1+3=4$
$3+1=4$	$1+3=4$	$7+1=8$	$8+1=9$	$8+2=10$	$9+2=11$	$7+2=9$
$9+1=10$	$9+2=11$	$1+3=4$	$7+2=9$	$1+3=4$	$9+1=10$	$9+2=11$
$7+1=8$	$8+1=9$	$8+2=10$	$9+1=10$	$9+2=11$	$1+3=4$	$8+2=10$
$8+2=10$	$9+1=10$	$9+2=11$	$7+1=8$	$8+2=10$	$9+2=11$	$1+3=4$
$8+1=9$	$8+2=10$	$1+3=4$	$9+2=11$	$7+2=9$	$9+1=10$	$9+2=11$

go to page 10, A

A $1 + 2 = 3$ $2 + 3 = 5$ $3 + 3 = 6$ $9 + 2 = 11$ $5 + 3 = 8$ $4 + 3 = 7$ $6 + 3 = 9$

6 or 7 correct, go to C; 5 or less, go to B

B **Work across the page**

$2 + 2 = 4$ $4 + 2 = 6$ $1 + 2 = 3$ $1 + 3 = 4$ $2 + 3 = 5$ $3 + 3 = 6$ $5 + 3 = 8$

$4 + 3 = 7$ $3 + 3 = 6$ $5 + 3 = 8$ $6 + 2 = 8$ $3 + 3 = 6$ $4 + 3 = 7$ $6 + 3 = 9$

$1 + 2 = 3$ $2 + 2 = 4$ $2 + 3 = 5$ $4 + 3 = 7$ $6 + 3 = 9$ $5 + 3 = 8$ $3 + 3 = 6$

$3 + 3 = 6$ $6 + 3 = 9$ $4 + 3 = 7$ $5 + 3 = 8$ $4 + 3 = 7$ $3 + 3 = 6$ $6 + 3 = 9$

$4 + 3 = 7$ $5 + 3 = 8$ $6 + 3 = 9$ $4 + 3 = 7$ $3 + 3 = 6$ $6 + 3 = 9$ $5 + 3 = 8$

$6 + 3 = 9$ $3 + 3 = 6$ $2 + 3 = 5$ $5 + 3 = 8$ $4 + 3 = 7$ $2 + 3 = 5$ $6 + 3 = 9$

go to page 10, C

C **Practice: work across the page**

1	2	3	4	5	6	7	8	9	10	11	12

$4 + 1 = 5$ $1 + 4 = 5$ $2 + 4 = 6$ $3 + 4 = 7$ $6 + 3 = 9$ $7 + 3 = 10$ $8 + 3 = 11$

$4 + 4 = 8$ $6 + 3 = 9$ $3 + 4 = 7$ $8 + 3 = 11$ $2 + 4 = 6$ $1 + 5 = 6$ $1 + 4 = 5$

$2 + 4 = 6$ $8 + 3 = 11$ $7 + 3 = 10$ $3 + 4 = 7$ $2 + 5 = 7$ $2 + 6 = 8$ $4 + 4 = 8$

$2 + 5 = 7$ $1 + 4 = 5$ $2 + 6 = 8$ $1 + 5 = 6$ $3 + 5 = 8$ $2 + 4 = 6$ $7 + 3 = 10$

$6 + 3 = 9$ $2 + 6 = 8$ $3 + 4 = 7$ $2 + 5 = 7$ $4 + 4 = 8$ $6 + 3 = 9$ $3 + 4 = 7$

$4 + 4 = 8$ $1 + 7 = 8$ $7 + 3 = 10$ $2 + 6 = 8$ $5 + 4 = 9$ $2 + 5 = 7$ $8 + 3 = 11$

$9 + 3 = 12$ $5 + 4 = 9$ $4 + 5 = 9$ $6 + 4 = 10$ $9 + 3 = 12$ $1 + 7 = 8$ $4 + 5 = 9$

$6 + 4 = 10$ $5 + 5 = 10$ $9 + 3 = 12$ $7 + 4 = 11$ $5 + 4 = 9$ $5 + 5 = 10$ $9 + 3 = 12$

$7 + 4 = 11$ $8 + 3 = 11$ $6 + 4 = 10$ $9 + 3 = 12$ $7 + 4 = 11$ $6 + 4 = 10$ $5 + 5 = 10$

$4 + 5 = 9$ $7 + 4 = 11$ $3 + 5 = 8$ $8 + 3 = 11$ $5 + 5 = 10$ $9 + 3 = 12$ $7 + 4 = 11$

go to page 10, E

A

$8 + 1 = 9$	$7 + 1 = 8$	$7 + 2 = 9$	$8 + 2 = 10$	$9 + 1 = 10$	$1 + 3 = 4$	$9 + 2 = 11$

6 or 7 correct, go to page 9, A; 5 or less, go to B

B **Work across the page**

$2 + 1 = 3$	$1 + 2 = 3$	$1 + 3 = 4$	$5 + 2 = 7$	$6 + 2 = 8$	$7 + 2 = 9$	$8 + 2 = 10$
$9 + 1 = 10$	$9 + 2 = 11$	$7 + 1 = 8$	$7 + 2 = 9$	$1 + 3 = 4$	$8 + 2 = 10$	$7 + 2 = 9$
$8 + 1 = 9$	$1 + 3 = 4$	$7 + 2 = 9$	$9 + 2 = 11$	$8 + 2 = 10$	$9 + 2 = 11$	$1 + 3 = 4$
$7 + 1 = 8$	$8 + 2 = 10$	$9 + 1 = 10$	$1 + 3 = 4$	$7 + 2 = 9$	$8 + 2 = 10$	$9 + 2 = 11$
$1 + 3 = 4$	$7 + 1 = 8$	$7 + 2 = 9$	$8 + 2 = 10$	$9 + 1 = 10$	$1 + 3 = 4$	$7 + 2 = 9$
$7 + 2 = 9$	$8 + 2 = 10$	$9 + 2 = 11$	$7 + 2 = 9$	$8 + 2 = 10$	$8 + 1 = 9$	$9 + 2 = 11$

go to page 9, A

C

$2 + 3 = 5$	$1 + 2 = 3$	$4 + 3 = 7$	$5 + 3 = 8$	$9 + 2 = 11$	$3 + 3 = 6$	$6 + 3 = 9$

6 or 7 correct, go to page 9, C; 5 or less, go to D

D **Work across the page**

$1 + 2 = 3$	$1 + 3 = 4$	$2 + 2 = 4$	$3 + 3 = 6$	$5 + 2 = 7$	$5 + 3 = 8$	$4 + 3 = 7$
$6 + 1 = 7$	$6 + 2 = 8$	$6 + 3 = 9$	$4 + 3 = 7$	$5 + 3 = 8$	$4 + 3 = 7$	$6 + 3 = 9$
$3 + 3 = 6$	$1 + 2 = 3$	$2 + 3 = 5$	$5 + 3 = 8$	$6 + 3 = 9$	$5 + 3 = 8$	$2 + 3 = 5$
$6 + 3 = 9$	$4 + 3 = 7$	$5 + 3 = 8$	$3 + 3 = 6$	$5 + 3 = 8$	$4 + 3 = 7$	$6 + 3 = 9$
$1 + 2 = 3$	$2 + 3 = 5$	$3 + 3 = 6$	$6 + 3 = 9$	$4 + 3 = 7$	$3 + 3 = 6$	$5 + 3 = 8$
$9 + 2 = 11$	$6 + 3 = 9$	$5 + 3 = 8$	$9 + 2 = 11$	$6 + 3 = 9$	$4 + 3 = 7$	$9 + 2 = 11$
$5 + 3 = 8$	$2 + 3 = 5$	$4 + 3 = 7$	$6 + 3 = 9$	$5 + 3 = 8$	$9 + 2 = 11$	$6 + 3 = 9$

go to page 9, C

E

$2 + 4 = 6$	$7 + 3 = 10$	$1 + 4 = 5$	$3 + 4 = 7$	$6 + 3 = 9$	$4 + 4 = 8$	$8 + 3 = 11$

6 or 7 correct, go to page 11, B; 5 or less, go to page 11, A

A Work across the page

$4 + 1 = 5$	$1 + 4 = 5$	$4 + 2 = 6$	$2 + 4 = 6$	$4 + 3 = 7$	$3 + 4 = 7$	$4 + 4 = 8$
$7 + 1 = 8$	$7 + 2 = 9$	$7 + 3 = 10$	$8 + 1 = 9$	$8 + 2 = 10$	$8 + 3 = 11$	$4 + 4 = 8$
$8 + 2 = 10$	$8 + 3 = 11$	$4 + 4 = 8$	$4 + 1 = 5$	$1 + 4 = 5$	$7 + 3 = 10$	$8 + 3 = 11$
$4 + 3 = 7$	$3 + 4 = 7$	$8 + 3 = 11$	$1 + 4 = 5$	$7 + 3 = 10$	$4 + 4 = 8$	$7 + 3 = 10$
$8 + 3 = 11$	$7 + 3 = 10$	$1 + 4 = 5$	$4 + 4 = 8$	$2 + 4 = 6$	$8 + 3 = 11$	$1 + 4 = 5$
$2 + 4 = 6$	$4 + 4 = 8$	$7 + 3 = 10$	$3 + 4 = 7$	$8 + 3 = 11$	$7 + 3 = 10$	$4 + 4 = 8$
$6 + 3 = 9$	$8 + 3 = 11$	$3 + 4 = 7$	$8 + 3 = 11$	$7 + 3 = 10$	$4 + 4 = 8$	$8 + 3 = 11$
$8 + 3 = 11$	$3 + 4 = 7$	$2 + 4 = 6$	$4 + 3 = 7$	$4 + 4 = 8$	$3 + 8 = 11$	$6 + 3 = 9$

go to page 12, A

B

$5 + 2 = 7$	$2 + 5 = 7$	$1 + 5 = 6$	$2 + 6 = 8$	$9 + 3 = 12$	$8 + 3 = 11$	$1 + 7 = 8$

6 or 7 correct, go to page 13, A; 5 or less, go to C

C

$5 + 1 = 6$	$1 + 5 = 6$	$5 + 2 = 7$	$1 + 7 = 8$	$6 + 2 = 8$	$8 + 3 = 11$	$9 + 3 = 12$
$2 + 1 = 3$	$1 + 2 = 3$	$5 + 1 = 6$	$1 + 5 = 6$	$5 + 2 = 7$	$2 + 5 = 7$	$9 + 3 = 12$
$5 + 1 = 6$	$1 + 5 = 6$	$5 + 2 = 7$	$2 + 7 = 9$	$6 + 2 = 8$	$2 + 6 = 8$	$1 + 7 = 8$
$9 + 3 = 12$	$2 + 6 = 8$	$1 + 7 = 8$	$9 + 3 = 12$	$1 + 5 = 6$	$1 + 7 = 8$	$9 + 3 = 12$
$2 + 6 = 8$	$1 + 5 = 6$	$2 + 5 = 7$	$2 + 6 = 8$	$5 + 2 = 7$	$9 + 3 = 12$	$2 + 5 = 7$
$2 + 5 = 7$	$9 + 3 = 12$	$1 + 5 = 6$	$9 + 3 = 12$	$1 + 7 = 8$	$2 + 6 = 8$	$9 + 3 = 12$
$5 + 2 = 7$	$6 + 2 = 8$	$2 + 6 = 8$	$8 + 3 = 11$	$2 + 5 = 7$	$9 + 3 = 12$	$1 + 7 = 8$
$9 + 3 = 12$	$2 + 5 = 7$	$8 + 3 = 11$	$9 + 3 = 12$	$6 + 2 = 8$	$2 + 5 = 7$	$8 + 3 = 11$
$1 + 7 = 8$	$2 + 6 = 8$	$2 + 5 = 7$	$1 + 5 = 6$	$8 + 3 = 11$	$2 + 6 = 8$	$9 + 3 = 12$
$2 + 6 = 8$	$2 + 5 = 7$	$9 + 3 = 12$	$2 + 6 = 8$	$5 + 2 = 7$	$9 + 3 = 12$	$2 + 5 = 7$

go to page 12, C

A	1 + 4 = 5	8 + 3 = 11	3 + 4 = 7	4 + 4 = 8	6 + 3 = 9	2 + 4 = 6	7 + 3 = 10

6 or 7 correct, go to page 11, B; 5 or less, go to B

B	4 + 2 = 6	1 + 4 = 5	2 + 4 = 6	4 + 3 = 7	3 + 4 = 7	2 + 4 = 6	4 + 4 = 8
	1 + 4 = 5	8 + 3 = 11	2 + 4 = 6	7 + 3 = 10	4 + 4 = 8	8 + 3 = 11	3 + 4 = 7
	7 + 3 = 10	4 + 4 = 8	8 + 3 = 11	3 + 4 = 7	7 + 3 = 10	2 + 4 = 6	4 + 4 = 8
	2 + 4 = 6	7 + 3 = 10	3 + 4 = 7	4 + 4 = 8	8 + 3 = 11	3 + 3 = 6	7 + 3 = 10
	4 + 4 = 8	8 + 3 = 11	2 + 4 = 6	7 + 3 = 10	3 + 4 = 7	7 + 3 = 10	1 + 4 = 5
	4 + 1 = 5	1 + 4 = 5	3 + 4 = 7	8 + 3 = 11	4 + 4 = 8	6 + 3 = 9	8 + 3 = 11
	7 + 3 = 10	4 + 4 = 8	2 + 4 = 6	7 + 3 = 10	8 + 3 = 11	3 + 4 = 7	7 + 3 = 10
	3 + 4 = 7	7 + 3 = 10	8 + 3 = 11	2 + 4 = 6	7 + 3 = 10	4 + 4 = 8	8 + 3 = 11

go to page 11, B

C	2 + 5 = 7	1 + 7 = 8	2 + 6 = 8	1 + 5 = 6	5 + 2 = 7	8 + 3 = 11	9 + 3 = 12

6 or 7 correct, go to page 13, A; 5 or less, go to D

D	5 + 2 = 7	2 + 5 = 7	5 + 1 = 6	1 + 5 = 6	6 + 2 = 8	2 + 6 = 8	9 + 3 = 12
	7 + 1 = 8	1 + 7 = 8	6 + 2 = 8	2 + 6 = 8	9 + 3 = 12	2 + 5 = 7	1 + 5 = 6
	6 + 2 = 8	2 + 6 = 8	1 + 5 = 6	9 + 3 = 12	1 + 7 = 8	2 + 6 = 8	2 + 5 = 7
	1 + 7 = 8	5 + 2 = 7	2 + 6 = 8	1 + 7 = 8	2 + 5 = 7	2 + 5 = 7	9 + 3 = 12
	9 + 3 = 12	2 + 6 = 8	2 + 5 = 7	2 + 6 = 8	1 + 5 = 6	9 + 3 = 12	1 + 7 = 8
	1 + 5 = 6	1 + 7 = 8	5 + 2 = 7	2 + 5 = 7	8 + 3 = 11	2 + 6 = 8	9 + 3 = 12
	2 + 6 = 8	8 + 3 = 11	9 + 3 = 12	2 + 6 = 8	9 + 3 = 12	2 + 5 = 7	8 + 3 = 11
	8 + 3 = 11	2 + 6 = 8	2 + 5 = 7	9 + 3 = 12	2 + 6 = 8	8 + 3 = 11	9 + 3 = 12
	9 + 3 = 12	2 + 5 = 7	5 + 2 = 7	2 + 6 = 8	9 + 3 = 12	6 + 2 = 8	8 + 3 = 11

go to page 13, A

A 5 + 4 = 9   3 + 5 = 8   6 + 4 = 10   9 + 3 = 12   5 + 5 = 10   7 + 4 = 11   4 + 5 = 9

6 or 7 correct, go to C; 5 or less, go to B

B

3 + 1 = 4   1 + 3 = 4   5 + 3 = 8   3 + 5 = 8   5 + 4 = 9   4 + 5 = 9   5 + 5 = 10
3 + 5 = 8   4 + 5 = 9   6 + 4 = 10   7 + 4 = 11   9 + 3 = 12   5 + 5 = 10   5 + 3 = 8
6 + 4 = 10   5 + 3 = 8   1 + 3 = 4   3 + 5 = 8   6 + 4 = 10   4 + 5 = 9   9 + 3 = 12
4 + 5 = 9   5 + 4 = 9   7 + 4 = 11   5 + 5 = 10   3 + 5 = 8   6 + 4 = 10   5 + 5 = 10
5 + 3 = 8   3 + 5 = 8   6 + 4 = 10   4 + 5 = 9   7 + 4 = 11   5 + 4 = 9   6 + 4 = 10
4 + 5 = 9   6 + 4 = 10   5 + 5 = 10   3 + 5 = 8   5 + 5 = 10   4 + 5 = 9   7 + 4 = 11
7 + 4 = 11   3 + 5 = 8   4 + 5 = 9   5 + 4 = 9   7 + 4 = 11   6 + 4 = 10   5 + 5 = 10
5 + 5 = 10   6 + 4 = 10   7 + 4 = 11   3 + 5 = 8   4 + 5 = 9   7 + 4 = 11   5 + 4 = 9

go to page 14, A

C **Revision: work across the page**

1 + 1 = 2   2 + 1 = 3   1 + 2 = 3   2 + 2 = 4   3 + 1 = 4   1 + 3 = 4   4 + 1 = 5
4 + 2 = 6   2 + 4 = 6   3 + 2 = 5   2 + 3 = 5   3 + 3 = 6   4 + 4 = 8   5 + 2 = 7
2 + 5 = 7   3 + 3 = 6   1 + 4 = 5   4 + 4 = 8   2 + 4 = 6   2 + 5 = 7   1 + 4 = 5
4 + 3 = 7   3 + 4 = 7   5 + 3 = 8   3 + 5 = 8   6 + 2 = 8   2 + 6 = 8   4 + 4 = 8
6 + 1 = 7   1 + 6 = 7   5 + 4 = 9   4 + 5 = 9   7 + 1 = 8   1 + 7 = 8   6 + 3 = 9
3 + 5 = 8   7 + 4 = 11   8 + 3 = 11   1 + 6 = 7   2 + 5 = 7   3 + 6 = 9   4 + 5 = 9
8 + 1 = 9   7 + 2 = 9   9 + 1 = 10   8 + 2 = 10   7 + 3 = 10   8 + 3 = 11   7 + 4 = 11
6 + 4 = 10   4 + 5 = 9   9 + 2 = 11   7 + 4 = 11   9 + 3 = 12   6 + 3 = 9   3 + 4 = 7
9 + 3 = 12   2 + 6 = 8   5 + 5 = 10   4 + 5 = 9   6 + 4 = 10   5 + 5 = 10   3 + 5 = 8
2 + 5 = 7   5 + 4 = 9   2 + 6 = 8   7 + 4 = 11   5 + 5 = 10   9 + 3 = 12   7 + 3 = 10
6 + 4 = 10   3 + 5 = 8   7 + 4 = 11   9 + 3 = 12   2 + 6 = 8   8 + 3 = 11   4 + 5 = 9

go to page 14, C

A	$5 + 4 = 9$	$4 + 5 = 9$	$3 + 5 = 8$	$8 + 3 = 11$	$6 + 4 = 10$	$5 + 5 = 10$	$7 + 4 = 11$

6 or 7 correct, go to page 13, C; 5 or less, go to B

B	$2 + 1 = 3$	$1 + 2 = 3$	$3 + 2 = 5$	$2 + 3 = 5$	$5 + 3 = 8$	$3 + 5 = 8$	$5 + 5 = 10$
	$5 + 4 = 9$	$4 + 5 = 9$	$6 + 4 = 10$	$7 + 4 = 11$	$5 + 5 = 10$	$7 + 4 = 11$	$6 + 4 = 10$
	$5 + 3 = 8$	$3 + 5 = 8$	$5 + 4 = 9$	$4 + 5 = 9$	$6 + 4 = 10$	$5 + 5 = 10$	$7 + 4 = 11$
	$5 + 4 = 9$	$5 + 5 = 10$	$3 + 5 = 8$	$6 + 4 = 10$	$5 + 5 = 10$	$7 + 4 = 11$	$6 + 4 = 10$
	$3 + 5 = 8$	$7 + 4 = 11$	$4 + 5 = 9$	$5 + 4 = 9$	$7 + 4 = 11$	$6 + 4 = 10$	$5 + 5 = 10$
	$7 + 4 = 11$	$5 + 5 = 10$	$6 + 4 = 10$	$4 + 5 = 9$	$6 + 4 = 10$	$5 + 4 = 9$	$7 + 4 = 11$
	$3 + 5 = 8$	$2 + 3 = 5$	$5 + 5 = 10$	$6 + 4 = 10$	$3 + 5 = 8$	$7 + 4 = 11$	$5 + 5 = 10$
	$7 + 4 = 11$	$5 + 5 = 10$	$6 + 4 = 10$	$4 + 5 = 9$	$6 + 4 = 10$	$5 + 4 = 9$	$7 + 4 = 11$
	$3 + 5 = 8$	$2 + 3 = 5$	$5 + 5 = 10$	$6 + 4 = 10$	$3 + 5 = 8$	$7 + 4 = 11$	$5 + 5 = 10$
	$7 + 4 = 11$	$6 + 4 = 10$	$7 + 3 = 10$	$5 + 5 = 10$	$4 + 5 = 9$	$5 + 5 = 10$	$7 + 4 = 11$
	$4 + 5 = 9$	$3 + 5 = 8$	$5 + 5 = 10$	$7 + 4 = 11$	$2 + 5 = 7$	$6 + 4 = 10$	$4 + 5 = 9$

go to page 13, C

C	$2 + 3 = 5$	$3 + 4 = 7$	$2 + 5 = 7$	$3 + 3 = 6$	$4 + 2 = 6$	$2 + 6 = 8$	$2 + 4 = 6$
	$3 + 5 = 8$	$4 + 3 = 7$	$5 + 5 = 10$	$4 + 4 = 8$	$6 + 3 = 9$	$1 + 7 = 8$	$6 + 4 = 10$
	$4 + 5 = 9$	$9 + 1 = 10$	$8 + 2 = 10$	$9 + 3 = 12$	$7 + 4 = 11$	$9 + 2 = 11$	$8 + 3 = 11$

13 or 14 correct, go to page 15, C; 12 or less, go to D

D	$1 + 7 = 8$	$4 + 3 = 7$	$3 + 4 = 7$	$5 + 3 = 8$	$3 + 5 = 8$	$2 + 6 = 8$	$4 + 4 = 8$
	$3 + 5 = 8$	$8 + 3 = 11$	$2 + 6 = 8$	$8 + 3 = 11$	$6 + 3 = 9$	$5 + 4 = 9$	$3 + 9 = 12$
	$4 + 5 = 9$	$5 + 4 = 9$	$9 + 2 = 11$	$9 + 3 = 12$	$7 + 4 = 11$	$5 + 5 = 10$	$2 + 9 = 11$
	$6 + 4 = 10$	$7 + 3 = 10$	$4 + 6 = 10$	$9 + 2 = 11$	$4 + 3 = 7$	$7 + 4 = 11$	$8 + 2 = 10$

go to page 15, A

A							
	2 + 3 = 5	1 + 7 = 8	3 + 4 = 7	8 + 2 = 10	2 + 5 = 7	7 + 4 = 11	8 + 2 = 10
	2 + 6 = 8	9 + 2 = 11	5 + 4 = 9	8 + 3 = 11	3 + 5 = 8	6 + 3 = 9	9 + 3 = 12

13 or 14 correct, go to C; 12 or less, go to B

B							
	2 + 1 = 3	1 + 2 = 3	3 + 1 = 4	1 + 3 = 4	3 + 2 = 5	2 + 3 = 5	4 + 2 = 6
	4 + 1 = 5	3 + 4 = 7	5 + 2 = 7	2 + 5 = 7	5 + 1 = 6	3 + 3 = 6	4 + 3 = 7
	2 + 2 = 4	4 + 4 = 8	6 + 1 = 7	1 + 6 = 7	5 + 2 = 7	2 + 5 = 7	1 + 7 = 8
	5 + 3 = 8	3 + 5 = 8	8 + 1 = 9	7 + 2 = 9	9 + 1 = 10	8 + 2 = 10	5 + 4 = 9
	9 + 2 = 11	7 + 3 = 10	6 + 2 = 8	2 + 6 = 8	5 + 5 = 10	6 + 3 = 9	7 + 3 = 10
	6 + 4 = 10	4 + 6 = 10	7 + 4 = 11	8 + 3 = 11	6 + 4 = 10	4 + 5 = 9	5 + 5 = 10
	8 + 1 = 9	8 + 3 = 11	8 + 2 = 10	9 + 3 = 12	5 + 5 = 10	9 + 2 = 11	2 + 6 = 8
	3 + 4 = 7	4 + 5 = 9	9 + 2 = 11	3 + 5 = 8	4 + 4 = 8	9 + 3 = 12	7 + 3 = 10

go to C

C	**Practice:**						
	7 + 2 = 9	2 + 7 = 9	6 + 4 = 10	4 + 6 = 10	7 + 3 = 10	3 + 7 = 10	6 + 6 = 12
	7 + 6 = 13	6 + 7 = 13	6 + 5 = 11	5 + 6 = 11	2 + 7 = 9	9 + 4 = 13	8 + 5 = 13
	7 + 3 = 10	7 + 5 = 12	5 + 7 = 12	7 + 6 = 13	4 + 6 = 10	7 + 5 = 12	3 + 7 = 10
	7 + 6 = 13	4 + 6 = 10	9 + 4 = 13	8 + 5 = 13	3 + 7 = 10	6 + 7 = 13	6 + 6 = 12
	8 + 5 = 13	3 + 7 = 10	6 + 7 = 13	7 + 5 = 12	7 + 6 = 13	5 + 7 = 12	9 + 4 = 13
	7 + 5 = 12	5 + 7 = 12	10 + 1 = 11	10 + 2 = 12	6 + 6 = 12	10 + 2 = 12	3 + 7 = 10
	10 + 3 = 13	7 + 6 = 13	10 + 3 = 13	10 + 5 = 15	6 + 7 = 13	8 + 5 = 13	9 + 4 = 13
	5 + 7 = 12	4 + 6 = 10	10 + 4 = 14	6 + 6 = 12	5 + 7 = 12	10 + 3 = 13	10 + 6 = 16
	3 + 7 = 10	6 + 7 = 13	7 + 5 = 12	9 + 4 = 13	8 + 5 = 13	10 + 6 = 16	9 + 3 = 12
	10 + 6 = 16	8 + 5 = 13	6 + 6 = 12	10 + 5 = 15	6 + 7 = 13	10 + 4 = 14	10 + 6 = 16

go to page 16, A

A	4 + 6 = 10	6 + 5 = 11	2 + 7 = 9	5 + 6 = 11	8 + 4 = 12	2 + 6 = 8	6 + 6 = 12

6 or 7 correct, go to C; 5 or less, go to B

B	6 + 4 = 10	4 + 6 = 10	6 + 5 = 11	5 + 6 = 11	7 + 2 = 9	2 + 7 = 9	6 + 6 = 12
	8 + 4 = 12	2 + 7 = 9	6 + 6 = 12	4 + 6 = 10	8 + 4 = 12	5 + 6 = 11	4 + 6 = 10
	6 + 6 = 12	6 + 5 = 11	2 + 7 = 9	5 + 6 = 11	6 + 6 = 12	2 + 7 = 9	6 + 6 = 12
	2 + 7 = 9	4 + 6 = 10	8 + 4 = 12	6 + 6 = 12	2 + 7 = 9	6 + 5 = 11	2 + 7 = 9
	8 + 4 = 12	6 + 6 = 12	6 + 5 = 11	4 + 6 = 10	6 + 6 = 12	2 + 7 = 9	5 + 6 = 11
	2 + 7 = 9	5 + 6 = 11	8 + 4 = 12	2 + 7 = 9	6 + 5 = 11	4 + 6 = 10	6 + 6 = 12
	4 + 6 = 10	8 + 4 = 12	2 + 7 = 9	4 + 6 = 10	6 + 6 = 12	5 + 6 = 11	6 + 5 = 11
	6 + 5 = 11	2 + 6 = 8	4 + 6 = 10	6 + 6 = 12	8 + 4 = 12	6 + 5 = 11	2 + 7 = 9
	2 + 6 = 8	6 + 6 = 12	5 + 6 = 11	2 + 6 = 8	2 + 7 = 9	8 + 4 = 12	5 + 6 = 11
	5 + 6 = 11	2 + 7 = 9	8 + 4 = 12	6 + 6 = 12	2 + 6 = 8	6 + 5 = 11	7 + 2 = 9

go to page 18, A

C	10 + 1 = 11	10 + 3 = 13	10 + 4 = 14	10 + 2 = 12	10 + 5 = 15	8 + 5 = 13	10 + 6 = 16

6 or 7 correct, go to page 17, A; 5 or less, go to D

D	10 + 1 = 11	10 + 2 = 12	10 + 3 = 13	10 + 5 = 15	10 + 4 = 14	10 + 6 = 16	10 + 4 = 14
	10 + 2 = 12	10 + 5 = 15	10 + 4 = 14	10 + 6 = 16	10 + 3 = 13	10 + 5 = 15	10 + 2 = 12
	10 + 1 = 11	10 + 3 = 13	10 + 2 = 12	10 + 5 = 15	10 + 4 = 14	10 + 1 = 11	10 + 6 = 16
	10 + 6 = 16	10 + 4 = 14	10 + 1 = 11	10 + 3 = 13	10 + 6 = 16	10 + 5 = 15	10 + 4 = 14
	10 + 5 = 15	10 + 2 = 12	10 + 6 = 16	10 + 4 = 14	10 + 3 = 13	10 + 1 = 11	10 + 5 = 15
	10 + 1 = 11	10 + 6 = 16	10 + 4 = 14	10 + 2 = 12	10 + 5 = 15	10 + 6 = 16	10 + 3 = 13
	8 + 3 = 11	8 + 4 = 12	8 + 5 = 13	10 + 5 = 15	10 + 6 = 16	10 + 7 = 17	10 + 4 = 14

go to page 18, C

A **Complete:**

2 apples + 1 apple = 3 apples

2 apples + 0 apples = 2 apples

4 apples + 2 apples = 6 apples

4 apples + 0 apples = 4 apples

3 apples + 0 apples = 3 apples

0 apples + 3 apples = 3 apples

go to B

B **Practice:**

2 + 1 = 3	2 + 0 = 2	1 + 1 = 2	1 + 0 = 1	3 + 2 = 5	3 + 0 = 3	5 + 0 = 5
4 + 0 = 4	6 + 0 = 6	3 + 3 = 6	3 + 0 = 3	2 + 5 = 7	4 + 4 = 8	4 + 0 = 4
5 + 2 = 7	2 + 5 = 7	7 + 0 = 7	7 + 2 = 9	2 + 7 = 9	8 + 2 = 10	9 + 2 = 11
3 + 5 = 8	5 + 0 = 5	3 + 4 = 7	6 + 3 = 9	3 + 6 = 9	7 + 3 = 10	8 + 4 = 12
4 + 4 = 8	1 + 0 = 1	0 + 0 = 0	2 + 6 = 8	9 + 3 = 12	2 + 0 = 2	0 + 2 = 2
5 + 4 = 9	4 + 5 = 9	4 + 0 = 4	0 + 4 = 4	5 + 5 = 10	0 + 3 = 3	4 + 6 = 10
6 + 5 = 11	7 + 4 = 11	0 + 6 = 6	6 + 6 = 12	8 + 4 = 12	7 + 5 = 12	0 + 7 = 7
10 + 2 = 12	0 + 8 = 8	9 + 4 = 13	8 + 5 = 13	7 + 6 = 13	6 + 7 = 13	8 + 0 = 8
7 + 6 = 13	3 + 5 = 8	0 + 7 = 7	10 + 6 = 16	9 + 4 = 13	9 + 0 = 9	8 + 5 = 13

go to page 19, A

A

6 + 4 = 10	4 + 6 = 10	2 + 7 = 9	5 + 6 = 11	8 + 4 = 12	6 + 5 = 11	6 + 6 = 12

6 or 7 correct, go to page 16, C; 5 or less, go to B

B

6 + 4 = 10	4 + 6 = 10	6 + 5 = 11	5 + 6 = 11	7 + 2 = 9	2 + 7 = 9	6 + 6 = 12
6 + 6 = 12	7 + 2 = 9	2 + 7 = 9	2 + 6 = 8	6 + 4 = 10	5 + 6 = 11	6 + 5 = 11
6 + 2 = 8	2 + 6 = 8	6 + 4 = 10	4 + 6 = 10	7 + 2 = 9	2 + 7 = 9	4 + 6 = 10
6 + 5 = 11	5 + 6 = 11	6 + 5 = 11	5 + 6 = 11	6 + 6 = 12	8 + 4 = 12	6 + 6 = 12
6 + 6 = 12	4 + 6 = 10	8 + 4 = 12	2 + 7 = 9	5 + 6 = 11	4 + 6 = 10	2 + 7 = 9
2 + 7 = 9	5 + 6 = 11	4 + 6 = 10	6 + 5 = 11	8 + 4 = 12	6 + 6 = 12	8 + 4 = 12
6 + 4 = 10	7 + 2 = 9	2 + 7 = 9	8 + 4 = 12	4 + 6 = 10	6 + 5 = 11	6 + 6 = 12
2 + 7 = 9	8 + 4 = 12	4 + 6 = 10	6 + 5 = 11	6 + 6 = 12	4 + 6 = 10	8 + 4 = 12
6 + 5 = 11	4 + 6 = 10	6 + 6 = 12	2 + 7 = 9	5 + 6 = 11	8 + 4 = 12	6 + 5 = 11

go to page 16, C

C

10 + 2 = 12	10 + 1 = 11	10 + 4 = 14	10 + 3 = 13	8 + 5 = 13	10 + 6 = 16	10 + 5 = 15

6 or 7 correct, go to page 17, A; 5 or less, go to D

D

10 + 1 = 11	10 + 2 = 12	10 + 1 = 11	10 + 2 = 12	10 + 3 = 13	10 + 2 = 12	10 + 3 = 13
10 + 3 = 13	10 + 4 = 14	10 + 5 = 15	10 + 4 = 14	10 + 3 = 13	10 + 6 = 16	10 + 6 = 16
10 + 5 = 15	10 + 3 = 13	10 + 6 = 16	10 + 3 = 13	10 + 5 = 15	10 + 4 = 14	10 + 2 = 12
10 + 6 = 16	10 + 2 = 12	10 + 1 = 11	10 + 5 = 15	10 + 4 = 14	10 + 3 = 13	10 + 6 = 16
10 + 1 = 11	10 + 3 = 13	10 + 5 = 15	10 + 2 = 12	10 + 6 = 16	10 + 4 = 14	10 + 3 = 13
10 + 2 = 12	10 + 6 = 16	10 + 4 = 14	8 + 4 = 12	10 + 5 = 15	8 + 4 = 12	10 + 6 = 16
10 + 1 = 11	10 + 3 = 13	10 + 6 = 16	8 + 5 = 13	10 + 4 = 14	10 + 2 = 12	10 + 5 = 15
10 + 2 = 12	10 + 6 = 16	10 + 3 = 13	10 + 5 = 15	10 + 3 = 13	10 + 6 = 16	10 + 4 = 14

go to page 17, A

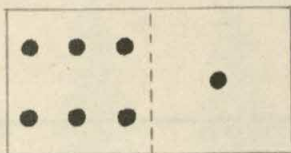
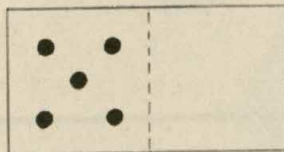
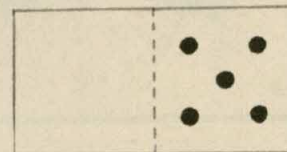
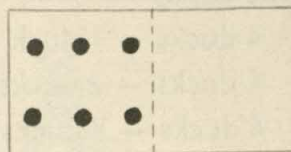
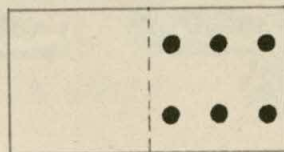
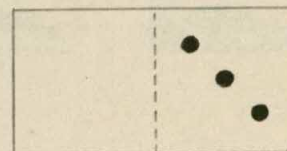
A

$3 + 1 = 4$ $3 + 0 = 3$ $2 + 3 = 5$ $3 + 2 = 5$ $4 + 0 = 4$ $0 + 4 = 4$ $0 + 3 = 3$

$8 + 2 = 10$ $5 + 0 = 5$ $0 + 5 = 5$ $7 + 3 = 10$ $6 + 0 = 6$ $6 + 5 = 11$ $0 + 6 = 6$

$9 + 0 = 9$ $4 + 4 = 8$ $9 + 4 = 13$ $8 + 0 = 8$ $0 + 7 = 7$ $7 + 7 = 14$ $0 + 0 = 0$

19, 20 or 21 correct, go to page 20, A; 18 or less, go to B

B

$6 + 1 = 7$ $5 + 0 = 5$ $0 + 5 = 5$

$6 + 0 = 6$ $0 + 6 = 6$ $0 + 3 = 3$

$1 + 1 = 2$ $1 + 0 = 1$ $0 + 1 = 1$ $2 + 1 = 3$ $1 + 2 = 3$ $2 + 0 = 2$ $0 + 2 = 2$

$3 + 0 = 3$ $0 + 3 = 3$ $2 + 4 = 6$ $5 + 2 = 7$ $2 + 5 = 7$ $6 + 0 = 6$ $0 + 6 = 6$

$10 + 2 = 12$ $3 + 4 = 7$ $0 + 4 = 4$ $4 + 3 = 7$ $10 + 3 = 13$ $3 + 6 = 9$ $7 + 4 = 11$

$4 + 5 = 9$ $6 + 6 = 12$ $2 + 7 = 9$ $0 + 8 = 8$ $5 + 6 = 11$ $8 + 2 = 10$ $10 + 5 = 15$

$3 + 7 = 10$ $8 + 3 = 11$ $9 + 2 = 11$ $10 + 6 = 16$ $6 + 7 = 13$ $8 + 4 = 12$ $7 + 6 = 13$

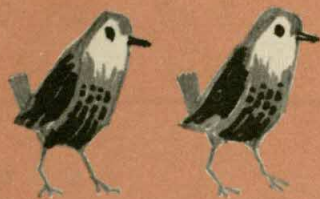
$9 + 3 = 12$ $3 + 5 = 8$ $9 + 0 = 9$ $9 + 4 = 13$ $8 + 5 = 13$ $0 + 10 = 10$ $8 + 5 = 13$

$3 + 0 = 3$ $0 + 3 = 3$ $0 + 7 = 7$ $8 + 3 = 11$ $10 + 6 = 16$ $7 + 0 = 7$ $8 + 0 = 8$

$6 + 6 = 12$ $6 + 0 = 6$ $10 + 4 = 14$ $0 + 8 = 8$ $7 + 6 = 13$ $6 + 7 = 13$ $9 + 4 = 13$

$5 + 0 = 5$ $5 + 6 = 11$ $4 + 0 = 4$ $7 + 4 = 11$ $0 + 9 = 9$ $2 + 7 = 9$ $0 + 6 = 6$

go to page 20, A

A

Take away —

2 birds — 1 bird = 1 bird

2 birds — 2 birds = 0 birds

go to B

B

Take away —

4 ducks — 1 duck = 3 ducks

4 ducks — 2 ducks = 2 ducks

4 ducks — 3 ducks = 1 duck

4 ducks — 4 ducks = 0 ducks

go to C

C

Take away —

3 cups — 1 cup = 2 cups

3 cups — 2 cups = 1 cup

3 cups — 3 cups = 0 cups

go to page 21, A

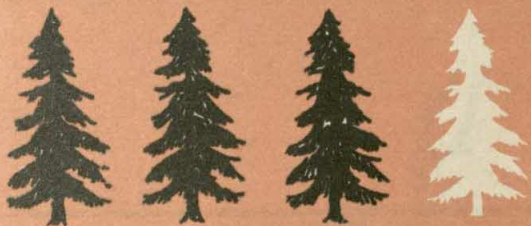
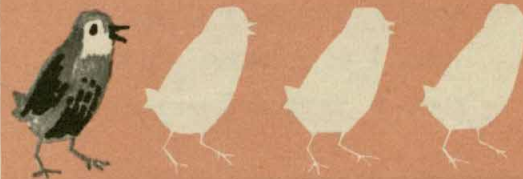
2087

Take away —

A

3 − 1 = 2

3 − 2 = 1

B

4 − 1 = 3

4 − 3 = 1

C

5 − 3 = 2

5 − 2 = 3

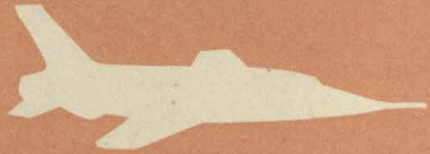
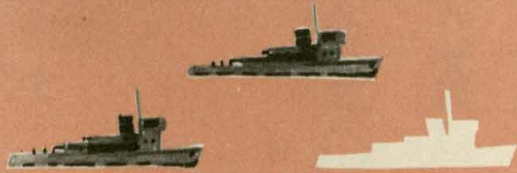
D

5 − 1 = 4

5 − 4 = 1

E

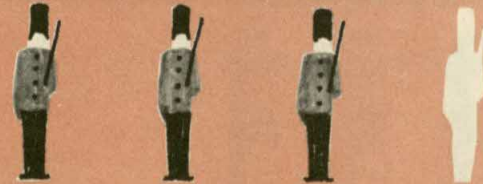
3 − 3 = 0

5 − 5 = 0

Library

go to page 22, A

Date 18.4.08
Acc. No. 13302

Make your own sums

go to page 23, A

A

Take away −

5 dogs − 1 dog = 4 dogs
5 dogs − 2 dogs = 3 dogs
5 dogs − 3 dogs = 2 dogs
5 dogs − 4 dogs = 1 dog
5 dogs − 5 dogs = 0 dogs

go to B

B **Practice: supply the missing figures**

$2 - 1 = 1$	$2 - 1 = 1$	$1 + 1 = 2$	$2 - 1 = 1$	$2 + 1 = 3$	$3 - 2 = 1$	$3 - 1 = 2$
$3 - 1 = 2$	$3 - 2 = 1$	$2 + 1 = 3$	$1 + 2 = 3$	$3 - 2 = 1$	$2 - 1 = 1$	$4 = 3 + 1$
$4 = 1 + 3$	$3 + 1 = 4$	$1 + 3 = 4$	$4 - 1 = 3$	$4 - 3 = 1$	$4 - 1 = 3$	$4 - 3 = 1$
$2 + 2 = 4$	$2 + 2 = 4$	$4 - 2 = 2$	$4 - 2 = 2$	$3 - 1 = 2$	$3 - 2 = 1$	$4 - 3 = 1$
$5 = 3 + 2$	$5 - 3 = 2$	$5 = 2 + 3$	$5 - 2 = 3$	$2 + 3 = 5$	$3 + 2 = 5$	$5 = 2 + 3$
$5 - 2 = 3$	$4 - 2 = 2$	$5 - 3 = 2$	$5 = 4 + 1$	$5 - 4 = 1$	$5 = 1 + 4$	$5 - 1 = 4$
$2 - 1 = 1$	$3 - 2 = 1$	$5 - 4 = 1$	$5 - 3 = 2$	$4 - 3 = 1$	$4 - 2 = 2$	$5 - 3 = 2$
$5 - 2 = 3$	$4 - 1 = 3$	$5 - 3 = 2$	$4 - 2 = 2$	$5 - 3 = 2$	$4 - 3 = 1$	$5 - 1 = 4$
$4 - 2 = 2$	$5 - 4 = 1$	$5 - 2 = 3$	$3 - 2 = 1$	$5 - 3 = 2$	$5 - 2 = 3$	$4 - 3 = 1$
$5 = 4 + 1$	$5 = 3 + 2$	$5 - 3 = 2$	$5 - 2 = 3$	$4 = 2 + 2$	$4 - 2 = 2$	$4 - 1 = 3$
$3 - 3 = 0$	$2 - 2 = 0$	$5 - 4 = 1$	$5 - 1 = 4$	$3 - 2 = 1$	$5 = 1 + 4$	$5 - 1 = 4$
$4 = 3 + 1$	$4 - 3 = 1$	$4 - 1 = 3$	$5 - 2 = 3$	$5 - 3 = 2$	$4 - 2 = 2$	$5 - 3 = 2$

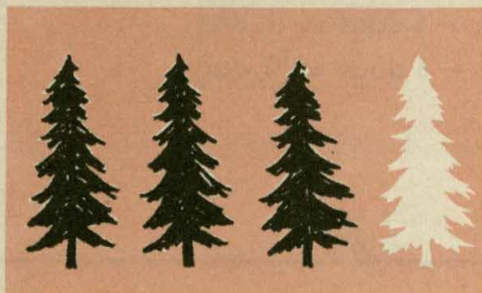
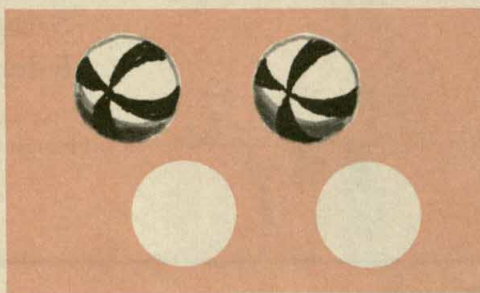
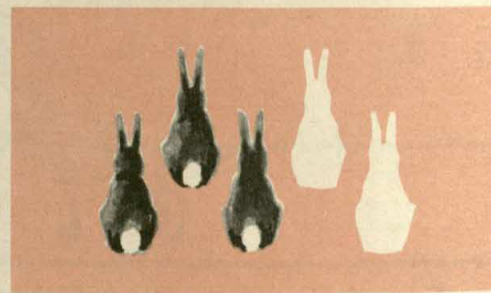
go to page 24, A

A $2 - 1 = 1$ $4 - 1 = 3$ $3 - 1 = 2$ $5 - 1 = 4$ $7 - 1 = 6$ $6 - 1 = 5$ $1 - 1 = 0$

6 or 7 correct, go to B; 5 or less, practise with apparatus, then go to B

B $3 - 2 = 1$ $5 - 4 = 1$ $4 - 2 = 2$ $4 - 3 = 1$ $5 - 2 = 3$ $2 - 2 = 0$ $5 - 3 = 2$

6 or 7 correct, go to page 25, A; 5 or less, go to C

C

$4 - 1 = 3$

$4 - 2 = 2$

$5 - 2 = 3$

1	2	3	4	5	6	7	8	9

$2 - 1 = 1$	$3 - 1 = 2$	$3 - 2 = 1$	$4 - 1 = 3$	$4 - 3 = 1$	$5 - 1 = 4$	$5 - 4 = 1$
$5 - 2 = 3$	$5 - 3 = 2$	$5 - 1 = 4$	$4 - 2 = 2$	$3 - 1 = 2$	$2 - 1 = 1$	$4 - 2 = 2$
$3 - 2 = 1$	$4 - 3 = 1$	$5 - 4 = 1$	$5 - 2 = 3$	$5 - 3 = 2$	$5 - 4 = 1$	$5 - 3 = 2$
$5 - 4 = 1$	$4 - 2 = 2$	$5 - 3 = 2$	$4 - 1 = 3$	$5 - 2 = 3$	$4 - 3 = 1$	$5 - 2 = 3$
$4 - 1 = 3$	$4 - 3 = 1$	$3 - 1 = 2$	$3 - 2 = 1$	$2 - 1 = 1$	$5 - 1 = 4$	$5 - 4 = 1$
$5 - 3 = 2$	$3 - 2 = 1$	$5 - 4 = 1$	$5 - 2 = 3$	$4 - 3 = 1$	$5 - 3 = 2$	$4 - 2 = 2$
$2 = 1 + 1$	$2 - 1 = 1$	$3 = 2 + 1$	$3 - 2 = 1$	$3 - 1 = 2$	$4 = 2 + 2$	$4 - 2 = 2$
$5 = 4 + 1$	$5 - 4 = 1$	$5 - 1 = 4$	$5 = 3 + 2$	$5 - 2 = 3$	$5 - 3 = 2$	$5 - 5 = 0$
$2 - 2 = 0$	$5 - 3 = 2$	$5 - 5 = 0$	$4 - 4 = 0$	$4 - 2 = 2$	$3 - 1 = 2$	$5 - 3 = 2$

go to page 26, A

A **Complete:**

1	2	3	4	5	6	7	8	9

$6 = 5 + 1$
$7 = 6 + 1$
$8 = 7 + 1$
$9 = 8 + 1$
$7 - 4 = 3$
$8 = 2 + 6$
$6 - 4 = 2$
$8 = 3 + 5$
$8 = 4 + 4$
$8 = 5 + 3$

$6 = 1 + 5$
$7 = 1 + 6$
$8 = 1 + 7$
$9 = 1 + 8$
$7 - 3 = 4$
$8 - 2 = 6$
$6 - 2 = 4$
$8 - 3 = 5$
$8 - 4 = 4$
$8 - 5 = 3$

$6 = 4 + 2$
$7 - 6 = 1$
$8 - 1 = 7$
$9 - 1 = 8$
$7 - 5 = 2$
$8 - 6 = 2$
$8 = 4 + 4$
$8 - 5 = 3$
$9 = 8 + 1$
$8 - 3 = 5$

$6 - 4 = 2$
$7 = 5 + 2$
$8 - 7 = 1$
$9 - 8 = 1$
$7 - 5 = 2$
$8 = 5 + 3$
$8 - 4 = 4$
$9 - 8 = 1$
$9 = 1 + 8$
$7 = 4 + 3$

$6 = 2 + 4$
$7 = 2 + 5$
$8 = 6 + 2$
$7 = 4 + 3$
$6 = 3 + 3$
$8 = 3 + 5$
$7 = 4 + 3$
$9 - 1 = 8$
$7 = 5 + 2$
$7 = 3 + 4$

$6 = 3 + 3$
$7 - 5 = 2$
$8 - 6 = 2$
$7 = 3 + 4$
$6 - 3 = 3$
$8 - 3 = 5$
$7 - 4 = 3$
$6 = 3 + 3$
$7 = 2 + 5$
$7 - 4 = 3$

$6 - 3 = 3$
$7 - 2 = 5$
$8 - 2 = 6$
$7 - 3 = 4$
$6 - 5 = 1$
$8 - 5 = 3$
$7 - 3 = 4$
$6 - 3 = 3$
$8 = 5 + 3$
$7 - 5 = 2$

go to B

B **Practice:**

$6 - 2 = 4$
$7 - 4 = 3$
$8 - 4 = 4$
$6 - 4 = 2$
$6 - 1 = 5$
$6 - 5 = 1$
$8 - 7 = 1$
$8 - 3 = 5$
$8 - 4 = 4$
$8 - 6 = 2$

$6 - 4 = 2$
$7 - 3 = 4$
$8 - 3 = 5$
$6 - 3 = 3$
$7 - 2 = 5$
$7 - 3 = 4$
$8 - 4 = 4$
$9 - 1 = 8$
$7 - 4 = 3$
$6 - 3 = 3$

$7 - 2 = 5$
$8 - 1 = 7$
$8 - 5 = 3$
$6 - 2 = 4$
$7 - 4 = 3$
$8 - 7 = 1$
$8 - 2 = 6$
$7 - 3 = 4$
$9 - 8 = 1$
$7 - 5 = 2$

$7 - 5 = 2$
$8 - 7 = 1$
$9 - 1 = 8$
$7 - 2 = 5$
$6 - 3 = 3$
$8 - 6 = 2$
$7 - 6 = 1$
$8 - 5 = 3$
$8 - 3 = 5$
$7 - 3 = 4$

$6 - 3 = 3$
$8 - 2 = 6$
$9 - 8 = 1$
$7 - 3 = 4$
$7 - 5 = 2$
$7 - 4 = 3$
$8 - 6 = 2$
$8 - 4 = 4$
$9 - 1 = 8$
$8 - 5 = 3$

$6 - 5 = 1$
$8 - 6 = 2$
$6 - 2 = 4$
$6 - 5 = 1$
$6 - 4 = 2$
$8 - 2 = 6$
$8 - 3 = 5$
$9 - 8 = 1$
$8 - 5 = 3$
$7 - 2 = 5$

$6 - 1 = 5$
$7 - 6 = 1$
$7 - 5 = 2$
$7 - 4 = 3$
$8 - 1 = 7$
$7 - 6 = 1$
$7 - 3 = 4$
$8 - 5 = 3$
$9 - 8 = 1$
$7 - 4 = 3$

go to page 26, C

A

$3-2=1$	$4-2=2$	$5-2=3$	$5-3=2$	$5-1=4$	$5-4=1$	$4-3=1$

6 or 7 correct, go to page 25, A; 5 or less, go to B

B

$3-1=2$	$3-2=1$	$4-1=3$	$4-3=1$	$5-2=3$	$5-3=2$	$4-2=2$
$5-1=4$	$5-4=1$	$5-2=3$	$4-2=2$	$3-1=2$	$3-2=1$	$5-2=3$
$3-2=1$	$4-3=1$	$5-3=2$	$5-1=4$	$5-2=3$	$5-4=1$	$5-3=2$
$4-2=2$	$5-4=1$	$4-3=1$	$3-2=1$	$5-4=1$	$4-3=1$	$5-2=3$
$3-2=1$	$5-3=2$	$5-2=3$	$4-3=1$	$5-3=2$	$5-4=1$	$4-2=2$
$5-2=3$	$5-1=4$	$5-4=1$	$5-3=2$	$4-2=2$	$5-2=3$	$5-3=2$
$4-3=1$	$5-3=2$	$5-2=3$	$5-4=1$	$3-2=1$	$5-1=4$	$4-2=2$

go to page 25, A

C

$6-2=4$	$7-2=5$	$7-5=2$	$6-3=3$	$6-4=2$	$6-5=1$	$6-1=5$

6 or 7 correct, go to E; 5 or less, go to D

D

$6=4+2$	$6=2+4$	$6-2=4$	$6-4=2$	$6=2+4$	$6-2=4$	$6-4=2$
$7=2+5$	$7-2=5$	$7=5+2$	$7-5=2$	$7-2=5$	$7=5+2$	$7-5=2$
$6=3+3$	$6-3=3$	$6=3+3$	$6-3=3$	$6-4=2$	$6-2=4$	$7-2=5$
$6=4+2$	$6=5+1$	$6-5=1$	$6=1+5$	$6-1=5$	$6-5=1$	$6-1=5$
$7-2=5$	$7-5=2$	$6-4=2$	$6-2=4$	$6-5=1$	$6-1=5$	$6-3=3$
$6-1=5$	$6-3=3$	$6-5=1$	$6-2=4$	$7-2=5$	$6-4=2$	$7-5=2$
$7-5=2$	$6-5=1$	$6-2=4$	$7-2=5$	$6-4=2$	$7-5=2$	$6-3=3$

go to page 28, A

E

$8-1=7$	$7-3=4$	$7-6=1$	$8-7=1$	$7-4=3$	$8-2=6$	$8-6=2$

6 or 7 correct, go to page 27, B; 5 or less, go to page 27, A

A	8 = 7 + 1	8 − 7 = 1	8 − 1 = 7	7 = 4 + 3	7 − 4 = 3	7 = 3 + 4	7 − 3 = 4
	7 − 4 = 3	7 − 3 = 4	8 − 7 = 1	8 − 1 = 7	8 = 6 + 2	8 − 6 = 2	8 − 2 = 6
	7 − 6 = 1	7 − 4 = 3	8 − 7 = 1	7 − 3 = 4	8 − 1 = 7	8 − 2 = 6	7 − 4 = 3
	7 − 3 = 4	8 − 1 = 7	7 − 6 = 1	7 − 4 = 3	8 − 7 = 1	7 − 3 = 4	7 − 1 = 6
	8 − 6 = 2	7 − 4 = 3	7 − 3 = 4	8 − 2 = 6	7 − 3 = 4	7 − 4 = 3	8 − 6 = 2
	7 − 4 = 3	8 − 7 = 1	8 − 6 = 2	8 − 1 = 7	7 − 3 = 4	8 − 2 = 6	7 − 4 = 3
	7 − 3 = 4	8 − 6 = 2	7 − 4 = 3	8 − 2 = 6	7 − 4 = 3	8 − 7 = 1	7 − 3 = 4

go to page 28, C

B	9 − 1 = 8	9 − 8 = 1	8 − 5 = 3	8 − 2 = 6	8 − 4 = 4	8 − 7 = 1	8 − 3 = 5

6 or 7 correct, go to D; 5 or less, go to C

C	9 = 8 + 1	9 = 1 + 8	9 − 8 = 1	9 − 1 = 8	8 = 4 + 4	8 − 4 = 4	9 − 8 = 1
	8 = 5 + 3	8 − 5 = 3	8 = 3 + 5	8 − 3 = 5	8 − 7 = 1	8 − 2 = 6	8 − 3 = 5
	8 − 5 = 3	9 − 8 = 1	8 − 4 = 4	9 − 1 = 8	8 − 3 = 5	9 − 8 = 1	8 − 4 = 4
	8 − 4 = 4	8 − 5 = 3	8 − 3 = 5	9 − 8 = 1	8 − 5 = 3	9 − 1 = 8	8 − 3 = 5
	8 − 5 = 3	9 − 1 = 8	8 − 4 = 4	8 − 3 = 5	9 − 8 = 1	8 − 5 = 3	8 − 4 = 4
	8 − 4 = 4	8 − 3 = 5	9 − 8 = 1	9 − 1 = 8	8 − 5 = 3	8 − 4 = 4	8 − 3 = 5

go to page 30, A

D							
	4 + 3 = 7	2 + 7 = 9	6 + 4 = 10	4 + 6 = 10	1 + 0 = 1	5 + 0 = 5	6 + 3 = 9
	4 − 2 = 2	5 − 3 = 2	6 − 3 = 3	5 − 2 = 3	7 − 5 = 2	6 − 4 = 2	7 − 3 = 4
	7 + 3 = 10	3 + 7 = 10	6 + 6 = 12	6 + 7 = 13	8 + 0 = 8	8 + 3 = 11	9 + 0 = 9
	8 − 4 = 4	7 − 2 = 5	8 − 3 = 5	8 − 6 = 2	7 − 4 = 3	9 − 8 = 1	8 − 5 = 3

go to page 29, A

A	$6 - 1 = 5$	$6 - 5 = 1$	$7 - 2 = 5$	$6 - 4 = 2$	$7 - 5 = 2$	$6 - 3 = 3$	$6 - 2 = 4$

6 or 7 correct, go to page 26, E; 5 or less, go to B

B	* * * * * *	$6 - 4 = 2$	$6 = 4 + 2$	$6 = 2 + 4$	$6 - 2 = 4$	$6 - 5 = 1$	$6 - 1 = 5$
	* * * * * * *	$7 = 5 + 2$	$7 - 5 = 2$	$7 = 2 + 5$	$7 - 2 = 5$	$7 - 5 = 2$	$7 - 2 = 5$
	$6 = 3 + 3$	$6 - 3 = 3$	$6 = 2 + 4$	$6 - 2 = 4$	$6 = 4 + 2$	$6 - 4 = 2$	$6 - 3 = 3$
	$6 = 5 + 1$	$6 - 5 = 1$	$6 = 1 + 5$	$6 - 1 = 5$	$6 - 5 = 1$	$6 - 3 = 3$	$6 - 1 = 5$
	$6 - 4 = 2$	$6 - 2 = 4$	$6 - 1 = 5$	$6 - 5 = 1$	$6 - 3 = 3$	$7 = 5 + 2$	$7 - 5 = 2$
	$7 = 2 + 5$	$7 - 2 = 5$	$7 = 5 + 2$	$7 - 5 = 2$	$7 - 2 = 5$	$7 - 5 = 2$	$6 - 3 = 3$
	$6 - 1 = 5$	$6 - 3 = 3$	$7 - 2 = 5$	$6 - 4 = 2$	$6 - 5 = 1$	$6 - 2 = 4$	$7 - 5 = 2$
	$7 - 5 = 2$	$6 - 2 = 4$	$6 - 5 = 1$	$6 - 3 = 3$	$6 - 1 = 5$	$6 - 4 = 2$	$7 - 2 = 5$

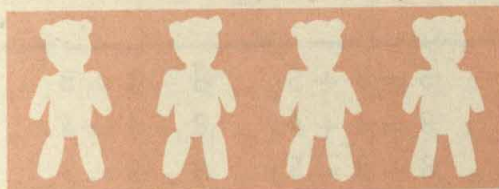
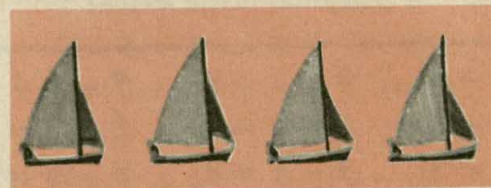
go to page 26, E

C	$7 - 6 = 1$	$8 - 1 = 7$	$7 - 4 = 3$	$8 - 2 = 6$	$8 - 6 = 2$	$8 - 7 = 1$	$7 - 3 = 4$

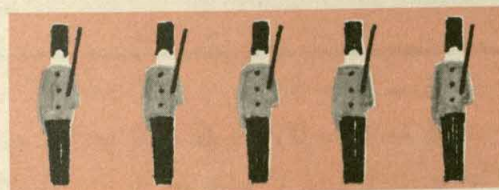
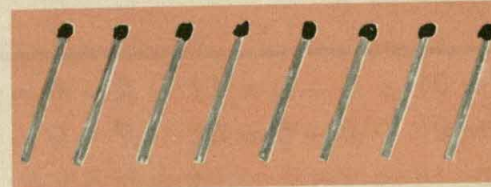
6 or 7 correct, go to page 27, B; 5 or less, go to D

D	* * * * * * *	$7 = 6 + 1$	$7 = 1 + 6$	$7 - 1 = 6$	$7 - 6 = 1$	$7 = 4 + 3$	$7 = 3 + 4$
	$7 - 4 = 3$	$7 - 3 = 4$	$7 - 1 = 6$	$7 - 6 = 1$	$7 - 3 = 4$	$7 - 6 = 1$	$7 - 4 = 3$
	* * * * * * * *	$8 = 6 + 2$	$8 - 6 = 2$	$8 = 2 + 6$	$8 - 2 = 6$	$8 - 1 = 7$	$8 - 7 = 1$
	$8 - 6 = 2$	$8 - 2 = 6$	$7 - 4 = 3$	$7 - 3 = 4$	$7 - 6 = 1$	$7 - 1 = 6$	$8 - 6 = 2$
	$7 - 3 = 4$	$7 - 6 = 1$	$8 - 1 = 7$	$7 - 4 = 3$	$8 - 2 = 6$	$7 - 3 = 4$	$7 - 6 = 1$
	$7 - 4 = 3$	$8 - 2 = 6$	$7 - 3 = 4$	$8 - 7 = 1$	$7 - 4 = 3$	$8 - 6 = 2$	$7 - 4 = 3$
	$7 - 6 = 1$	$7 - 3 = 4$	$8 - 1 = 7$	$7 - 4 = 3$	$8 - 2 = 6$	$7 - 3 = 4$	$8 - 1 = 7$
	$8 - 2 = 6$	$7 - 4 = 3$	$7 - 3 = 4$	$8 - 6 = 2$	$7 - 3 = 4$	$8 - 2 = 6$	$7 - 4 = 3$
	$7 - 3 = 4$	$7 - 5 = 2$	$8 - 2 = 6$	$7 - 4 = 3$	$7 - 6 = 1$	$8 - 7 = 1$	$8 - 6 = 2$

go to page 27, B

A Take away −

4 − 4 = 0

4 − 0 = 4

6 − 6 = 0

6 − 0 = 6

5 − 0 = 5

8 − 0 = 8

go to B

B Practice:

1 − 1 = 0	1 − 0 = 1	2 − 2 = 0	2 − 1 = 1	2 − 0 = 2	4 − 0 = 4	4 − 4 = 0
3 − 2 = 1	3 − 0 = 3	3 − 3 = 0	1 − 0 = 1	6 − 0 = 6	6 − 6 = 0	5 − 5 = 0
2 − 0 = 2	4 − 0 = 4	2 − 2 = 0	5 − 5 = 0	4 − 4 = 0	3 − 0 = 3	3 − 3 = 0
6 − 6 = 0	5 − 5 = 0	6 − 0 = 6	4 − 0 = 4	7 − 0 = 7	7 − 7 = 0	6 − 6 = 0
8 − 0 = 8	7 − 0 = 7	7 − 7 = 0	8 − 8 = 0	9 − 9 = 0	9 − 0 = 9	8 − 0 = 8
7 − 0 = 7	9 − 9 = 0	9 − 0 = 9	8 − 0 = 8	5 − 5 = 0	7 − 0 = 7	6 − 0 = 6

go to page 30, C

A	$8 - 6 = 2$	$9 - 1 = 8$	$8 - 3 = 5$	$8 - 5 = 3$	$9 - 8 = 1$	$8 - 2 = 6$	$8 - 4 = 4$

6 or 7 correct, go to page 29, A; 5 or less, go to B

B	$9 = 1 + 8$	$9 - 1 = 8$	$9 = 8 + 1$	$9 - 8 = 1$	$8 = 3 + 5$	$8 - 3 = 5$	$8 - 5 = 3$
	$8 = 5 + 3$	$8 - 5 = 3$	$8 - 3 = 5$	$9 - 1 = 8$	$8 = 4 + 4$	$8 - 4 = 4$	$9 - 8 = 1$
	$8 - 5 = 3$	$9 - 1 = 8$	$8 - 5 = 3$	$9 - 8 = 1$	$8 - 3 = 5$	$8 - 5 = 3$	$8 - 4 = 4$
	$9 - 8 = 1$	$8 - 5 = 3$	$8 - 4 = 4$	$9 - 9 = 0$	$8 - 5 = 3$	$9 - 8 = 1$	$8 - 3 = 5$
	$8 - 3 = 5$	$8 - 8 = 0$	$8 - 0 = 8$	$8 - 5 = 3$	$9 - 8 = 1$	$8 - 4 = 4$	$8 - 5 = 3$
	$8 - 4 = 4$	$8 - 5 = 3$	$8 - 3 = 5$	$9 - 1 = 8$	$8 - 4 = 4$	$8 - 3 = 5$	$9 - 0 = 9$
	$8 - 6 = 2$	$9 - 8 = 1$	$8 - 5 = 3$	$8 - 6 = 2$	$8 - 3 = 5$	$8 - 5 = 3$	$8 - 4 = 4$
	$8 - 2 = 6$	$8 - 3 = 5$	$8 - 4 = 4$	$8 - 5 = 3$	$8 - 4 = 4$	$8 - 3 = 5$	$8 - 5 = 3$

go to page 29, A

C	$1 - 1 = 0$	$1 - 0 = 1$	$2 - 0 = 2$	$2 - 2 = 0$	$6 - 0 = 6$	$4 - 0 = 4$	$6 - 6 = 0$
	$7 - 7 = 0$	$8 - 8 = 0$	$7 - 0 = 7$	$9 - 0 = 9$	$4 - 4 = 0$	$5 - 0 = 5$	$9 - 9 = 0$

12, 13 or 14 correct, go to page 31, A; 11 or less, go to D

D	$1 - 1 = 0$	$1 - 0 = 1$	$2 - 2 = 0$	$2 - 0 = 2$	$6 - 0 = 6$	$6 - 6 = 0$	$4 - 0 = 4$
	$2 - 0 = 2$	$4 - 0 = 4$	$3 - 0 = 3$	$2 - 2 = 0$	$3 - 3 = 0$	$4 - 4 = 0$	$1 - 0 = 1$
	$2 - 2 = 0$	$1 - 1 = 0$	$6 - 6 = 0$	$6 - 0 = 6$	$2 - 0 = 2$	$6 - 6 = 0$	$2 - 2 = 0$
	$4 - 0 = 4$	$2 - 0 = 2$	$4 - 0 = 4$	$2 - 0 = 2$	$1 - 1 = 0$	$6 - 0 = 6$	$4 - 0 = 4$
	$3 - 3 = 0$	$6 - 6 = 0$	$2 - 2 = 0$	$6 - 0 = 6$	$4 - 0 = 4$	$4 - 4 = 0$	$2 - 0 = 2$
	$5 - 0 = 5$	$5 - 5 = 0$	$7 - 7 = 0$	$7 - 0 = 7$	$9 - 0 = 9$	$9 - 9 = 0$	$8 - 8 = 0$
	$7 - 0 = 7$	$8 - 0 = 8$	$9 - 9 = 0$	$8 - 8 = 0$	$6 - 6 = 0$	$5 - 0 = 5$	$9 - 0 = 9$
	$3 - 3 = 0$	$4 - 0 = 4$	$7 - 0 = 7$	$5 - 5 = 0$	$8 - 0 = 8$	$9 - 0 = 9$	$7 - 7 = 0$

go to page 32, A

A **Complete:**

$2 = 1 + 1$	$2 - 1 = 1$	$2 = 2 + 0$	$2 - 2 = 0$	$2 - 0 = 2$	$3 = 2 + 1$	$3 - 2 = 1$
$3 = 1 + 2$	$3 - 1 = 2$	$3 - 3 = 0$	$3 - 0 = 3$	$4 = 2 + 2$	$4 - 2 = 2$	$4 = 3 + 1$
$4 - 3 = 1$	$4 - 1 = 3$	$5 = 3 + 2$	$5 - 2 = 3$	$5 - 3 = 2$	$5 - 4 = 1$	$5 - 2 = 3$
$6 = 4 + 2$	$6 = 3 + 3$	$6 = 1 + 5$	$6 = 5 + 1$	$6 - 3 = 3$	$7 = 5 + 2$	$7 = 3 + 4$
$7 - 4 = 3$	$7 - 3 = 4$	$7 - 5 = 2$	$7 = 2 + 5$	$8 = 5 + 3$	$8 = 4 + 4$	$8 - 3 = 5$
$9 = 9 + 0$	$7 - 0 = 7$	$7 - 7 = 0$	$5 - 5 = 0$	$5 - 0 = 5$	$8 - 2 = 6$	$8 = 6 + 2$
$2 - 2 = 0$	$3 - 0 = 3$	$8 - 5 = 3$	$8 - 3 = 5$	$9 - 9 = 0$	$9 - 0 = 9$	$6 - 3 = 3$
$7 = 5 + 2$	$7 - 2 = 5$	$7 - 3 = 4$	$8 = 4 + 4$	$8 - 6 = 2$	$7 = 4 + 3$	$8 - 8 = 0$

go to B

B **Revision:**

$2 - 1 = 1$	$2 - 2 = 0$	$2 - 0 = 2$	$3 - 0 = 3$	$3 - 3 = 0$	$4 - 4 = 0$	$5 - 5 = 0$
$3 - 2 = 1$	$4 - 2 = 2$	$4 - 3 = 1$	$4 - 1 = 3$	$5 - 2 = 3$	$5 - 3 = 2$	$6 - 6 = 0$
$7 - 0 = 7$	$6 - 4 = 2$	$6 - 2 = 4$	$6 - 3 = 3$	$4 - 2 = 2$	$8 - 4 = 4$	$5 - 2 = 3$
$8 - 8 = 0$	$6 - 3 = 3$	$7 - 6 = 1$	$5 - 3 = 2$	$7 - 5 = 2$	$7 - 2 = 5$	$6 - 3 = 3$
$5 - 3 = 2$	$5 - 5 = 0$	$6 - 4 = 2$	$4 - 0 = 4$	$5 - 2 = 3$	$6 - 0 = 6$	$7 - 6 = 1$
$4 - 2 = 2$	$7 - 7 = 0$	$4 - 4 = 0$	$6 - 3 = 3$	$3 - 0 = 3$	$6 - 2 = 4$	$7 - 5 = 2$
$6 - 4 = 2$	$7 - 6 = 1$	$7 - 2 = 5$	$7 - 5 = 2$	$5 - 3 = 2$	$7 - 1 = 6$	$7 - 4 = 3$
$5 - 2 = 3$	$7 - 3 = 4$	$7 - 4 = 3$	$7 - 6 = 1$	$7 - 2 = 5$	$6 - 3 = 3$	$7 - 3 = 4$
$8 - 0 = 8$	$6 - 2 = 4$	$8 - 6 = 2$	$8 - 2 = 6$	$7 - 1 = 6$	$7 - 5 = 2$	$8 - 6 = 2$
$7 - 3 = 4$	$8 - 2 = 6$	$9 - 1 = 8$	$7 - 4 = 3$	$8 - 6 = 2$	$8 - 2 = 6$	$9 - 0 = 9$
$9 - 8 = 1$	$7 - 4 = 3$	$8 - 4 = 4$	$9 - 9 = 0$	$8 - 7 = 1$	$8 - 5 = 3$	$8 - 1 = 7$
$8 - 5 = 3$	$8 - 3 = 5$	$8 - 0 = 8$	$8 - 4 = 4$	$8 - 3 = 5$	$9 - 0 = 9$	$8 - 5 = 3$
$9 - 1 = 8$	$9 - 0 = 9$	$7 - 3 = 4$	$8 - 5 = 3$	$6 - 6 = 0$	$6 - 3 = 3$	$8 - 0 = 8$

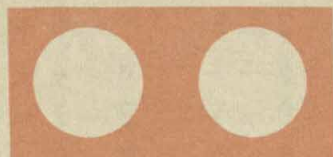
go to page 33, A

A

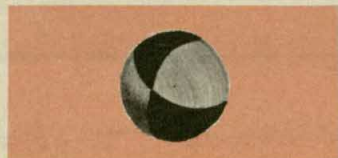
1 − 0 = 1   1 − 1 = 0   2 − 2 = 0   4 − 4 = 0   4 − 0 = 4   2 − 0 = 2   3 − 3 = 0

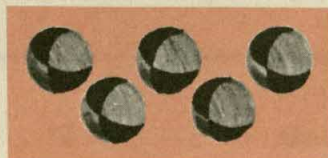
7 − 7 = 0   7 − 0 = 7   9 − 0 = 9   5 − 0 = 5   6 − 6 = 0   8 − 0 = 8   9 − 9 = 0

12, 13 or 14 correct, go to page 31, A; 11 or less, go to B

B

2 − 2 = 0

3 − 0 = 3

3 − 3 = 0

1 − 0 = 1

1 − 1 = 0

5 − 0 = 5

5 − 5 = 0

2 − 1 = 1   2 − 0 = 2   2 − 2 = 0   3 − 1 = 2   3 − 2 = 1   3 − 3 = 0   3 − 0 = 3

4 − 1 = 3   4 − 3 = 1   4 − 0 = 4   4 − 4 = 0   5 − 2 = 3   5 − 3 = 2   5 − 0 = 5

5 − 5 = 0   6 − 6 = 0   7 − 7 = 0   8 − 8 = 0   9 − 9 = 0   10 − 10 = 0   10 − 1 = 9

4 − 0 = 4   6 − 0 = 6   5 − 0 = 5   9 − 0 = 9   9 − 9 = 0   8 − 0 = 8   7 − 0 = 7

6 − 6 = 0   7 − 0 = 7   8 − 0 = 8   9 − 9 = 0   8 − 8 = 0   5 − 0 = 5   4 − 4 = 0

2 − 2 = 0   3 − 0 = 3   1 − 1 = 0   6 − 6 = 0   9 − 0 = 9   4 − 0 = 4   7 − 7 = 0

1 − 0 = 1   4 − 4 = 0   4 − 0 = 4   2 − 2 = 0   3 − 3 = 0   6 − 0 = 6   5 − 0 = 5

3 − 0 = 3   8 − 0 = 8   5 − 5 = 0   7 − 7 = 0   9 − 0 = 9   1 − 1 = 0   7 − 0 = 7

8 − 8 = 0   4 − 0 = 4   7 − 0 = 7   5 − 0 = 5   6 − 6 = 0   8 − 0 = 8   9 − 9 = 0

go to page 31, A

A

$3 - 1 = 2$ $3 - 0 = 3$ $4 - 2 = 2$ $6 - 6 = 0$ $7 - 4 = 3$ $5 - 3 = 2$ $8 - 4 = 4$

$9 - 1 = 8$ $7 - 7 = 0$ $8 - 6 = 2$ $8 - 0 = 8$ $7 - 2 = 5$ $8 - 5 = 3$ $9 - 9 = 0$

12, 13 or 14 correct, go to C; 11 or less, go to B

B

$1 - 1 = 0$ $1 - 0 = 1$ $2 - 2 = 0$ $2 - 0 = 2$ $3 - 1 = 2$ $3 - 2 = 1$ $4 - 0 = 4$

$4 - 4 = 0$ $5 - 2 = 3$ $5 - 3 = 2$ $6 - 4 = 2$ $6 - 2 = 4$ $5 - 4 = 1$ $5 - 1 = 4$

$6 - 6 = 0$ $6 - 0 = 6$ $7 - 5 = 2$ $7 - 2 = 5$ $6 - 3 = 3$ $7 - 4 = 3$ $7 - 3 = 4$

$4 - 3 = 1$ $6 - 3 = 3$ $5 - 2 = 3$ $6 - 4 = 2$ $7 - 2 = 5$ $5 - 3 = 2$ $6 - 2 = 4$

$5 - 2 = 3$ $7 - 5 = 2$ $8 - 1 = 7$ $6 - 3 = 3$ $7 - 4 = 3$ $8 - 8 = 0$ $6 - 4 = 2$

$6 - 3 = 3$ $7 - 4 = 3$ $5 - 3 = 2$ $8 - 2 = 6$ $8 - 6 = 2$ $9 - 0 = 9$ $7 - 3 = 4$

$5 - 3 = 2$ $6 - 2 = 4$ $8 - 6 = 2$ $9 - 1 = 8$ $5 - 2 = 3$ $8 - 3 = 5$ $8 - 5 = 3$

$6 - 4 = 2$ $8 - 2 = 6$ $7 - 3 = 4$ $8 - 3 = 5$ $9 - 8 = 1$ $7 - 0 = 7$ $9 - 9 = 0$

$7 - 2 = 5$ $8 - 5 = 3$ $8 - 4 = 4$ $9 - 1 = 8$ $8 - 4 = 4$ $8 - 5 = 3$ $9 - 8 = 1$

go to page 34, A

C **Revision:**

$5 + 3 = 8$ $3 + 5 = 8$ $4 + 7 = 11$ $2 + 5 = 7$ $6 + 2 = 8$ $2 + 6 = 8$ $6 + 3 = 9$

$3 + 7 = 10$ $6 + 4 = 10$ $4 + 6 = 10$ $7 + 0 = 7$ $3 + 6 = 9$ $6 + 5 = 11$ $5 + 6 = 11$

$4 + 6 = 10$ $6 + 6 = 12$ $5 + 5 = 10$ $8 + 1 = 9$ $5 + 6 = 11$ $7 + 5 = 12$ $5 + 7 = 12$

$8 + 2 = 10$ $9 + 0 = 9$ $8 + 3 = 11$ $5 + 7 = 12$ $6 + 6 = 12$ $7 + 4 = 11$ $3 + 6 = 9$

$5 + 7 = 12$ $6 + 4 = 10$ $4 + 5 = 9$ $8 + 2 = 10$ $5 + 4 = 9$ $8 + 3 = 11$ $2 + 6 = 8$

$2 + 7 = 9$ $0 + 5 = 5$ $8 + 0 = 8$ $8 + 4 = 12$ $0 + 6 = 6$ $7 + 6 = 13$ $6 + 7 = 13$

$7 + 6 = 13$ $6 + 7 = 13$ $7 + 2 = 9$ $4 + 5 = 9$ $6 + 7 = 13$ $8 + 4 = 12$ $2 + 7 = 9$

$7 + 3 = 10$ $9 + 3 = 12$ $10 + 2 = 12$ $9 + 2 = 11$ $10 + 3 = 13$ $9 + 4 = 13$ $10 + 5 = 15$

$10 + 4 = 14$ $8 + 5 = 13$ $9 + 4 = 13$ $10 + 6 = 16$ $7 + 7 = 14$ $8 + 4 = 12$ $9 + 3 = 12$

go to page 34, C

A

$3 - 2 = 1$ $2 - 2 = 0$ $4 - 0 = 4$ $5 - 5 = 0$ $5 - 2 = 3$ $3 - 0 = 3$ $6 - 3 = 3$

$9 - 0 = 9$ $6 - 4 = 2$ $8 - 3 = 5$ $9 - 9 = 0$ $7 - 5 = 2$ $7 - 3 = 4$ $8 - 5 = 3$

12, 13 or 14 correct, go to page 33, C; 11 or less, go to B

B

$4 = 4 + 0$ $4 = 0 + 4$ $4 - 0 = 4$ $4 - 4 = 0$ $5 - 5 = 0$ $5 - 0 = 5$ $4 - 2 = 2$

$5 = 3 + 2$ $5 - 3 = 2$ $5 = 2 + 3$ $5 - 2 = 3$ $6 = 3 + 3$ $6 - 3 = 3$ $4 - 3 = 1$

$6 - 4 = 2$ $6 - 2 = 4$ $3 - 3 = 0$ $6 - 6 = 0$ $6 - 0 = 6$ $7 - 5 = 2$ $7 - 2 = 5$

$4 - 2 = 2$ $5 - 4 = 1$ $6 - 3 = 3$ $5 - 3 = 2$ $7 - 0 = 7$ $5 - 2 = 3$ $7 - 4 = 3$

$8 - 7 = 1$ $8 - 1 = 7$ $9 - 1 = 8$ $8 - 5 = 3$ $8 - 6 = 2$ $8 - 2 = 6$ $8 - 3 = 5$

$7 - 3 = 4$ $7 - 4 = 3$ $8 - 3 = 5$ $7 - 2 = 5$ $9 - 9 = 0$ $8 - 0 = 8$ $9 - 1 = 8$

$8 - 5 = 3$ $8 - 4 = 4$ $7 - 3 = 4$ $7 - 6 = 1$ $7 - 1 = 6$ $7 - 4 = 3$ $8 - 6 = 2$

$7 - 2 = 5$ $6 - 4 = 2$ $8 - 3 = 5$ $7 - 4 = 3$ $5 - 5 = 0$ $6 - 0 = 6$ $9 - 9 = 0$

go to page 33, C

C

$6 + 1 = 7$ $3 + 4 = 7$ $5 + 2 = 7$ $2 + 5 = 7$ $4 + 7 = 11$ $0 + 2 = 2$ $7 + 4 = 11$

$8 + 0 = 8$ $4 + 5 = 9$ $5 + 7 = 12$ $8 + 5 = 13$ $7 + 6 = 13$ $10 + 6 = 16$ $9 + 5 = 14$

12, 13 or 14 correct, go to page 35, B; 11 or less, go to D

D

$3 + 1 = 4$ $3 + 2 = 5$ $2 + 3 = 5$ $4 + 3 = 7$ $3 + 4 = 7$ $5 + 0 = 5$ $0 + 5 = 5$

$4 + 3 = 7$ $4 + 2 = 6$ $5 + 3 = 8$ $3 + 5 = 8$ $4 + 4 = 8$ $5 + 5 = 10$ $6 + 2 = 8$

$5 + 2 = 7$ $2 + 5 = 7$ $6 + 3 = 9$ $3 + 6 = 9$ $7 + 2 = 9$ $2 + 6 = 8$ $8 + 2 = 10$

$7 + 3 = 10$ $3 + 7 = 10$ $4 + 7 = 11$ $8 + 4 = 12$ $4 + 8 = 12$ $3 + 8 = 11$ $6 + 4 = 10$

$5 + 7 = 12$ $6 + 5 = 11$ $4 + 6 = 10$ $7 + 4 = 11$ $9 + 2 = 11$ $2 + 9 = 11$ $0 + 6 = 6$

$8 + 3 = 11$ $4 + 5 = 9$ $7 + 6 = 13$ $6 + 7 = 13$ $8 + 5 = 13$ $8 + 7 = 15$ $9 + 5 = 14$

$3 + 4 = 7$ $5 + 3 = 8$ $5 + 7 = 12$ $9 + 2 = 11$ $4 + 7 = 11$ $5 + 9 = 14$ $7 + 8 = 15$

go to page 36, A

A

$3 + 0 = 3$ $0 + 3 = 3$ $3 + 2 = 5$ $2 + 3 = 5$ $5 + 2 = 7$ $2 + 5 = 7$ $3 + 3 = 6$

$4 + 2 = 6$ $2 + 4 = 6$ $4 + 3 = 7$ $1 + 5 = 6$ $2 + 6 = 8$ $0 + 4 = 4$ $8 + 0 = 8$

$2 + 5 = 7$ $3 + 4 = 7$ $6 + 4 = 10$ $4 + 6 = 10$ $7 + 2 = 9$ $2 + 7 = 9$ $3 + 6 = 9$

$7 + 3 = 10$ $3 + 7 = 10$ $2 + 6 = 8$ $7 + 4 = 11$ $4 + 7 = 11$ $0 + 6 = 6$ $4 + 7 = 11$

$3 + 6 = 9$ $9 + 0 = 9$ $4 + 7 = 11$ $0 + 5 = 5$ $0 + 0 = 0$ $3 + 7 = 10$ $4 + 5 = 9$

$4 + 5 = 9$ $6 + 6 = 12$ $3 + 7 = 10$ $5 + 7 = 12$ $5 + 6 = 11$ $4 + 7 = 11$ $8 + 2 = 10$

$5 + 6 = 11$ $7 + 5 = 12$ $7 + 6 = 13$ $6 + 7 = 13$ $5 + 7 = 12$ $6 + 6 = 12$ $6 + 7 = 13$

$7 + 6 = 13$ $10 + 1 = 11$ $10 + 0 = 10$ $0 + 8 = 8$ $9 + 1 = 10$ $6 + 7 = 13$ $9 + 2 = 11$

$10 + 3 = 13$ $4 + 6 = 10$ $8 + 3 = 11$ $7 + 6 = 13$ $8 + 5 = 13$ $8 + 4 = 12$ $10 + 5 = 15$

$9 + 3 = 12$ $6 + 7 = 13$ $8 + 4 = 12$ $9 + 4 = 13$ $8 + 3 = 11$ $9 + 3 = 12$ $8 + 5 = 13$

go to B

B **Practice:**

1	2	3	4	5	6	7	8	9	10	11	12

$9 - 2 = 7$ $9 - 7 = 2$ $9 - 3 = 6$ $9 - 6 = 3$ $10 - 1 = 9$ $10 - 9 = 1$ $10 - 5 = 5$

$9 - 4 = 5$ $9 - 5 = 4$ $11 - 2 = 9$ $11 - 9 = 2$ $10 - 6 = 4$ $10 - 2 = 8$ $10 - 4 = 6$

$11 - 3 = 8$ $11 - 8 = 3$ $10 - 8 = 2$ $10 - 3 = 7$ $10 - 7 = 3$ $11 - 4 = 7$ $11 - 7 = 4$

$12 - 9 = 3$ $12 - 3 = 9$ $9 - 6 = 3$ $9 - 2 = 7$ $10 - 4 = 6$ $9 - 7 = 2$ $10 - 3 = 7$

$9 - 3 = 6$ $9 - 7 = 2$ $10 - 2 = 8$ $11 - 2 = 9$ $11 - 9 = 2$ $11 - 3 = 8$ $11 - 8 = 3$

$11 - 5 = 6$ $11 - 6 = 5$ $11 - 5 = 6$ $12 - 3 = 9$ $12 - 9 = 3$ $9 - 4 = 5$ $9 - 5 = 4$

$9 - 4 = 5$ $10 - 7 = 3$ $11 - 4 = 7$ $11 - 7 = 4$ $9 - 5 = 4$ $11 - 6 = 5$ $12 - 6 = 6$

$12 - 4 = 8$ $12 - 8 = 4$ $12 - 4 = 8$ $12 - 6 = 6$ $12 - 8 = 4$ $10 - 6 = 4$ $9 - 0 = 9$

$12 - 7 = 5$ $12 - 5 = 7$ $12 - 7 = 5$ $12 - 8 = 4$ $12 - 5 = 7$ $11 - 7 = 4$ $12 - 4 = 8$

$9 - 9 = 0$ $9 - 6 = 3$ $11 - 7 = 4$ $8 - 0 = 8$ $11 - 8 = 3$ $10 - 4 = 6$ $12 - 5 = 7$

go to page 36, B

A

6 + 0 = 6	7 + 2 = 9	2 + 7 = 9	3 + 4 = 7	5 + 3 = 8	10 + 2 = 12	10 + 0 = 10
8 + 4 = 12	5 + 6 = 11	7 + 7 = 14	9 + 3 = 12	10 + 6 = 16	7 + 6 = 13	9 + 4 = 13

12, 13 or 14 correct, go to page 35, B; 11 or less, go to page 35, A

B

9 − 2 = 7	9 − 3 = 6	9 − 6 = 3	10 − 1 = 9	9 − 7 = 2	10 − 5 = 5	10 − 9 = 1

6 or 7 correct, go to D; 5 or less, go to C

C

10 − 1 = 9	10 − 5 = 5	9 − 2 = 7	9 − 7 = 2	9 − 2 = 7	10 − 1 = 9	10 − 9 = 1
9 − 3 = 6	9 − 6 = 3	9 − 3 = 6	10 − 9 = 1	9 − 7 = 2	9 − 2 = 7	9 − 6 = 3
9 − 7 = 2	9 − 2 = 7	10 − 5 = 5	10 − 1 = 9	10 − 9 = 1	9 − 6 = 3	9 − 3 = 6
9 − 6 = 3	9 − 7 = 2	9 − 6 = 3	9 − 7 = 2	9 − 2 = 7	9 − 2 = 7	10 − 5 = 5
9 − 2 = 7	9 − 3 = 6	9 − 2 = 7	9 − 6 = 3	10 − 1 = 9	9 − 7 = 2	9 − 7 = 2
9 − 7 = 2	9 − 6 = 3	9 − 3 = 6	10 − 5 = 5	9 − 2 = 7	10 − 9 = 1	9 − 6 = 3
9 − 2 = 7	10 − 2 = 8	9 − 6 = 3	9 − 7 = 2	10 − 9 = 1	9 − 3 = 6	10 − 6 = 4

go to page 38, A

D

10 − 3 = 7	9 − 4 = 5	9 − 5 = 4	10 − 7 = 3	9 − 3 = 6	11 − 9 = 2	11 − 2 = 9

6 or 7 correct, go to page 37, A; 5 or less, go to E

E

9 = 4 + 5	9 = 5 + 4	9 − 5 = 4	9 − 4 = 5	10 = 7 + 3	11 = 9 + 2	11 − 9 = 2
10 − 3 = 7	10 − 7 = 3	10 − 3 = 7	10 − 7 = 3	11 − 9 = 2	11 − 2 = 9	11 − 2 = 9
11 − 9 = 2	10 − 3 = 7	9 − 4 = 5	9 − 4 = 5	9 − 5 = 4	9 − 5 = 4	10 − 7 = 3
9 − 4 = 5	9 − 5 = 4	9 − 5 = 4	10 − 3 = 7	10 − 7 = 3	11 − 9 = 2	11 − 9 = 2
11 − 2 = 9	11 − 2 = 9	10 − 7 = 3	9 − 4 = 5	9 − 5 = 4	11 − 2 = 9	9 − 5 = 4
10 − 3 = 7	9 − 4 = 5	11 − 2 = 9	9 − 5 = 4	11 − 9 = 2	10 − 7 = 3	9 − 3 = 6
11 − 2 = 9	10 − 7 = 3	9 − 4 = 5	9 − 3 = 6	10 − 3 = 7	9 − 5 = 4	11 − 9 = 2

go to page 38, C

A $9 - 8 = 1$ $11 - 8 = 3$ $11 - 3 = 8$ $10 - 6 = 4$ $11 - 6 = 5$ $11 - 5 = 6$ $10 - 4 = 6$

6 or 7 correct, go to C; 5 or less, go to B

B $11 = 8 + 3$ $11 = 3 + 8$ $10 = 6 + 4$ $10 = 4 + 6$ $10 - 4 = 6$ $11 = 6 + 5$ $11 = 5 + 6$

$10 - 6 = 4$ $11 - 6 = 5$ $11 - 6 = 5$ $11 - 5 = 6$ $11 - 5 = 6$ $11 - 6 = 5$ $10 - 6 = 4$

$11 - 6 = 5$ $11 - 5 = 6$ $10 - 6 = 4$ $10 - 6 = 4$ $10 - 4 = 6$ $10 - 4 = 6$ $9 - 8 = 1$

$11 - 8 = 3$ $11 - 8 = 3$ $11 - 3 = 8$ $11 - 8 = 3$ $11 - 3 = 8$ $11 - 3 = 8$ $11 - 8 = 3$

$10 - 4 = 6$ $10 - 6 = 4$ $11 - 5 = 6$ $11 - 6 = 5$ $9 - 6 = 3$ $11 - 8 = 3$ $11 - 3 = 8$

$9 - 8 = 1$ $11 - 3 = 8$ $10 - 6 = 4$ $11 - 5 = 6$ $11 - 8 = 3$ $10 - 4 = 6$ $11 - 6 = 5$

$11 - 3 = 8$ $10 - 6 = 4$ $11 - 5 = 6$ $11 - 8 = 3$ $11 - 6 = 5$ $11 - 8 = 3$ $11 - 5 = 6$

go to page 38, E

C $12 - 9 = 3$ $12 - 3 = 9$ $11 - 7 = 4$ $12 - 6 = 6$ $11 - 4 = 7$ $12 - 4 = 8$ $12 - 8 = 4$

6 or 7 correct, go to page 39, C; 5 or less, go to D

D $12 - 9 = 3$ $12 - 9 = 3$ $12 - 3 = 9$ $12 - 9 = 3$ $12 - 8 = 4$ $12 - 8 = 4$ $12 - 4 = 8$

$12 - 4 = 8$ $12 - 4 = 8$ $12 - 8 = 4$ $12 - 7 = 5$ $12 - 7 = 5$ $12 - 5 = 7$ $12 - 5 = 7$

$12 - 7 = 5$ $12 - 6 = 6$ $12 - 5 = 7$ $12 - 5 = 7$ $12 - 9 = 3$ $12 - 3 = 9$ $12 - 6 = 6$

$11 - 7 = 4$ $11 - 7 = 4$ $11 - 4 = 7$ $11 - 4 = 7$ $11 - 7 = 4$ $11 - 4 = 7$ $11 - 7 = 4$

$12 - 4 = 8$ $12 - 3 = 9$ $12 - 8 = 4$ $12 - 6 = 6$ $12 - 5 = 7$ $11 - 7 = 4$ $12 - 9 = 3$

$12 - 5 = 7$ $12 - 9 = 3$ $11 - 7 = 4$ $12 - 3 = 9$ $11 - 4 = 7$ $12 - 8 = 4$ $12 - 7 = 5$

$11 - 7 = 4$ $12 - 3 = 9$ $12 - 4 = 8$ $12 - 9 = 3$ $12 - 6 = 6$ $12 - 4 = 8$ $11 - 7 = 4$

$12 - 8 = 4$ $11 - 4 = 7$ $12 - 3 = 9$ $12 - 8 = 4$ $12 - 9 = 3$ $11 - 4 = 7$ $12 - 6 = 6$

$11 - 4 = 7$ $12 - 8 = 4$ $12 - 4 = 8$ $11 - 7 = 4$ $12 - 6 = 6$ $11 - 8 = 3$ $12 - 8 = 4$

$12 - 9 = 3$ $11 - 7 = 4$ $12 - 6 = 6$ $12 - 9 = 3$ $11 - 4 = 7$ $12 - 8 = 4$ $12 - 3 = 9$

go to page 38, F

A $10-1=9$ $9-7=2$ $9-2=7$ $9-6=3$ $10-5=5$ $9-3=6$ $10-9=1$

6 or 7 correct, go to page 36 D; 5 or less, go to B

B $10-5=5$ $9-2=7$ $9-7=2$ $9-2=7$ $9-7=2$ $9-7=2$ $10-1=9$
$9-2=7$ $10-1=9$ $9-3=6$ $9-6=3$ $9-6=3$ $9-3=6$ $10-9=1$
$9-3=6$ $9-3=6$ $9-6=3$ $9-7=2$ $10-9=1$ $9-7=2$ $9-2=7$
$9-2=7$ $9-7=2$ $9-7=2$ $9-3=6$ $10-5=5$ $9-6=3$ $9-6=3$
$9-7=2$ $10-1=9$ $9-7=2$ $9-2=7$ $9-2=7$ $9-3=6$ $10-9=1$
$9-3=6$ $9-6=3$ $9-6=3$ $9-7=2$ $9-7=2$ $9-6=3$ $9-2=7$

go to page 36, D

C $11-9=2$ $11-2=9$ $10-7=3$ $9-5=4$ $9-3=6$ $10-3=7$ $9-4=5$

6 or 7 correct, go to page 37, A; 5 or less, go to D

D $11-2=9$ $11-2=9$ $11-9=2$ $11-9=2$ $11-2=9$ $10-7=3$ $10-7=3$
$10-3=7$ $10-7=3$ $10-3=7$ $10-3=7$ $9-4=5$ $9-4=5$ $11-9=2$
$9-4=5$ $9-5=4$ $9-5=4$ $9-4=5$ $9-5=4$ $11-2=9$ $11-2=9$
$11-9=2$ $11-9=2$ $11-9=2$ $10-7=3$ $10-3=7$ $10-3=7$ $10-7=3$
$9-3=6$ $9-6=3$ $11-2=9$ $10-3=7$ $9-4=5$ $9-5=4$ $11-9=2$
$11-9=2$ $10-3=7$ $9-5=4$ $11-2=9$ $11-9=2$ $10-7=3$ $9-4=5$

go to page 37, A

E $11-3=8$ $11-8=3$ $10-6=4$ $11-6=5$ $11-5=6$ $9-6=3$ $10-4=6$

6 or 7 correct, go to page 37, C; 5 or less, go to page 39, A

F $12-6=6$ $11-4=7$ $11-7=4$ $12-7=5$ $12-4=8$ $12-9=3$ $12-3=9$

6 or 7 correct, go to page 39, C; 5 or less, go to page 39, B

A

$11 = 5 + 6$	$11 = 6 + 5$	$11 = 8 + 3$	$11 = 3 + 8$	$10 = 6 + 4$	$10 = 4 + 6$	$10 = 5 + 5$
$10 - 5 = 5$	$10 - 4 = 6$	$10 - 4 = 6$	$10 - 6 = 4$	$10 - 4 = 6$	$10 - 6 = 4$	$10 - 6 = 4$
$11 - 6 = 5$	$11 - 6 = 5$	$11 - 5 = 6$	$11 - 5 = 6$	$11 - 6 = 5$	$11 - 5 = 6$	$11 - 6 = 5$
$11 - 8 = 3$	$11 - 8 = 3$	$11 - 8 = 3$	$11 - 3 = 8$	$11 - 3 = 8$	$11 - 8 = 3$	$11 - 3 = 8$
$11 - 5 = 6$	$10 - 5 = 5$	$10 - 6 = 4$	$11 - 6 = 5$	$11 - 5 = 6$	$11 - 3 = 8$	$11 - 5 = 6$
$10 - 4 = 6$	$11 - 8 = 3$	$11 - 5 = 6$	$11 - 3 = 8$	$10 - 4 = 6$	$11 - 6 = 5$	$11 - 8 = 3$
$11 = 3 + 8$	$11 = 6 + 5$	$10 = 4 + 6$	$11 = 8 + 3$	$11 = 5 + 6$	$11 = 3 + 8$	$10 = 6 + 4$

go to page 37, C

B

$11 = 7 + 4$	$11 = 4 + 7$	$11 - 4 = 7$	$11 - 7 = 4$	$12 = 3 + 9$	$12 - 3 = 9$	$12 = 6 + 6$
$12 - 9 = 3$	$12 - 3 = 9$	$12 - 3 = 9$	$12 - 3 = 9$	$12 - 9 = 3$	$12 - 9 = 3$	$12 - 6 = 6$
$12 - 6 = 6$	$11 - 7 = 4$	$11 - 7 = 4$	$11 - 4 = 7$	$11 - 4 = 7$	$11 - 7 = 4$	$11 - 4 = 7$
$12 - 6 = 6$	$12 - 8 = 4$	$12 - 8 = 4$	$12 - 4 = 8$	$12 - 8 = 4$	$12 - 4 = 8$	$12 - 4 = 8$
$12 - 8 = 4$	$12 - 7 = 5$	$12 - 7 = 5$	$12 - 7 = 5$	$12 - 5 = 7$	$12 - 5 = 7$	$12 - 5 = 7$
$12 - 7 = 5$	$11 - 4 = 7$	$12 - 6 = 6$	$12 - 3 = 9$	$12 - 8 = 4$	$11 - 7 = 4$	$12 - 9 = 3$
$11 - 4 = 7$	$12 - 3 = 9$	$11 - 7 = 4$	$12 - 5 = 7$	$12 - 9 = 3$	$12 - 4 = 8$	$12 - 7 = 5$

go to C

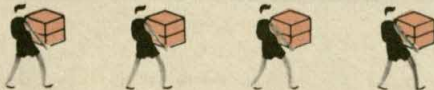
C

Speed practice: be very careful with the signs

$3 + 2 = 5$	$4 + 3 = 7$	$2 + 3 = 5$	$2 + 5 = 7$	$4 + 4 = 8$	$3 + 5 = 8$	$6 + 3 = 9$
$2 - 1 = 1$	$3 - 2 = 1$	$3 - 3 = 0$	$3 - 0 = 3$	$5 - 2 = 3$	$5 - 3 = 2$	$4 - 4 = 0$
$2 + 4 = 6$	$3 + 4 = 7$	$6 + 2 = 8$	$2 + 6 = 8$	$5 + 4 = 9$	$4 + 6 = 10$	$3 + 6 = 9$
$5 - 4 = 1$	$6 - 3 = 3$	$5 - 5 = 0$	$7 - 5 = 2$	$7 - 2 = 5$	$6 - 4 = 2$	$7 - 3 = 4$
$5 + 2 = 7$	$6 + 4 = 10$	$4 + 5 = 9$	$5 + 6 = 11$	$7 + 3 = 10$	$3 + 7 = 10$	$8 + 3 = 11$
$7 - 4 = 3$	$8 - 0 = 8$	$8 - 5 = 3$	$9 - 4 = 5$	$9 - 9 = 0$	$10 - 6 = 4$	$9 - 5 = 4$

go to page 40, A

A

Speed practice:

$2+3=5$	$3+4=7$	$3-2=1$	$4-4=0$	$4-0=4$	$2+4=6$	$2+5=7$
$4+4=8$	$3+5=8$	$5+3=8$	$8-5=3$	$8-3=5$	$6+2=8$	$2+6=8$
$8-6=2$	$8-2=6$	$8-7=1$	$8-1=7$	$8-0=8$	$8-8=0$	$1+7=8$
$3+6=9$	$6+3=9$	$2+7=9$	$9-0=9$	$9-9=0$	$4+6=10$	$6+4=10$
$0+9=9$	$9-0=9$	$9-9=0$	$7+2=9$	$2+7=9$	$4+7=11$	$9+2=11$
$5+7=12$	$7-4=3$	$8+4=12$	$9-8=1$	$7-3=4$	$9-6=3$	$8-5=3$

go to B

B

Complete:

How many?

2 boxes 1 time = 2 boxes

2 boxes 2 times = 4 boxes

2 boxes 3 times = 6 boxes

2 boxes 4 times = 8 boxes

2 boxes 5 times = 10 boxes

2 boxes 6 times = 12 boxes

go to page 41, A

A **Complete each column:**

2 × 1 = 2	1 × 2 = 2	2 × 6 = 12	2 × 1 = 2	3 × 2 = 6	2 × 2 = 4
2 × 2 = 4	2 × 2 = 4	2 × 5 = 10	2 × 3 = 6	2 × 2 = 4	2 × 1 = 2
2 × 3 = 6	3 × 2 = 6	2 × 4 = 8	2 × 5 = 10	1 × 2 = 2	3 × 2 = 6
2 × 4 = 8	4 × 2 = 8	2 × 3 = 6	2 × 2 = 4	5 × 2 = 10	2 × 5 = 10
2 × 5 = 10	5 × 2 = 10	2 × 2 = 4	2 × 4 = 8	4 × 2 = 8	6 × 2 = 12
2 × 6 = 12	6 × 2 = 12	2 × 1 = 2	2 × 6 = 12	6 × 2 = 12	4 × 2 = 8

go to B

B **Put in the missing numbers, counting in twos:**

(a) 2, 4, 6, 8, 10. (b) 2, 4, 6, 8, 10, 12. (c) 4, 6, 8, 10, 12.

go to D

C

3 × 1 = 3	1 × 3 = 3	3 × 3 = 9	2 × 3 = 6	3 × 2 = 6	3 × 3 = 9	3 × 4 = 12
3 × 3 = 9	3 × 2 = 6	1 × 3 = 3	3 × 1 = 3	3 × 3 = 9	3 × 4 = 12	4 × 3 = 12
3 × 5 = 15	5 × 3 = 15	3 × 6 = 18	6 × 3 = 18	4 × 3 = 12	6 × 3 = 18	5 × 3 = 15
6 × 3 = 18	3 × 4 = 12	3 × 2 = 6	5 × 3 = 15	3 × 5 = 15	4 × 3 = 12	3 × 6 = 18
3 × 3 = 9	3 × 5 = 15	3 × 4 = 12	4 × 3 = 12	3 × 6 = 18	5 × 3 = 15	3 × 4 = 12

go to page 45, A

D

2 × 1 = 2	1 × 2 = 2	2 × 2 = 4	2 × 3 = 6	3 × 2 = 6	2 × 4 = 8	4 × 2 = 8
4 × 2 = 8	2 × 5 = 10	5 × 2 = 10	2 × 6 = 12	6 × 2 = 12	5 × 2 = 10	3 × 2 = 6
5 × 2 = 10	3 × 2 = 6	2 × 6 = 12	4 × 2 = 8	2 × 3 = 6	2 × 4 = 8	6 × 2 = 12
2 × 4 = 8	6 × 2 = 12	4 × 2 = 8	2 × 5 = 10	2 × 4 = 8	3 × 2 = 6	2 × 6 = 12
2 × 3 = 6	2 × 6 = 12	2 × 2 = 4	2 × 4 = 8	4 × 2 = 8	2 × 6 = 12	2 × 5 = 10

go to page 42, A

A

2 × 1 = 2   2 × 2 = 4   3 × 2 = 6   2 × 5 = 10   4 × 2 = 8   2 × 4 = 8   6 × 2 = 12

6 or 7 correct, go to page 43, A; 5 or less, go to B

B

Complete by writing the answers below the line:

2 ×	1	2	3	4	5	6
	2	4	6	8	10	12

go to C

C

2 × 1 = 2	1 × 2 = 2	2 × 2 = 4	2 × 4 = 8	4 × 2 = 8	2 × 3 = 6	2 × 6 = 12
2 × 2 = 4	3 × 2 = 6	2 × 3 = 6	1 × 2 = 2	2 × 1 = 2	2 × 4 = 8	4 × 2 = 8
2 × 6 = 12	6 × 2 = 12	2 × 5 = 10	5 × 2 = 10	2 × 3 = 6	2 × 6 = 12	3 × 2 = 6
5 × 2 = 10	4 × 2 = 8	2 × 6 = 12	2 × 4 = 8	2 × 5 = 10	4 × 2 = 8	5 × 2 = 10
2 × 6 = 12	2 × 3 = 6	2 × 4 = 8	2 × 5 = 10	6 × 2 = 12	2 × 5 = 10	2 × 6 = 12
2 × 4 = 8	2 × 5 = 10	6 × 2 = 12	2 × 3 = 6	4 × 2 = 8	2 × 6 = 12	5 × 2 = 10

go to page 44, A

D

Complete each column:

5 × 1 = 5	1 × 5 = 5	5 × 2 = 10	5 × 3 = 15	4 × 5 = 20	5 × 1 = 5
5 × 2 = 10	2 × 5 = 10	5 × 3 = 15	5 × 2 = 10	2 × 5 = 10	3 × 5 = 15
5 × 3 = 15	3 × 5 = 15	5 × 5 = 25	5 × 4 = 20	6 × 5 = 30	5 × 5 = 25
5 × 4 = 20	4 × 5 = 20	5 × 1 = 5	5 × 6 = 30	1 × 5 = 5	2 × 5 = 10
5 × 5 = 25	5 × 5 = 25	5 × 4 = 20	5 × 1 = 5	3 × 5 = 15	5 × 6 = 30
5 × 6 = 30	6 × 5 = 30	5 × 6 = 30	5 × 5 = 25	5 × 5 = 25	4 × 5 = 20

go to E

E

Put in the missing numbers, counting in fives:

(a) 5, 10, 15, 20   (b) 5, 10, 15, 20, 25.   (c) 5, 10, 15, 20, 25, 30.

go to page 45, D

A **Complete:**

3 girls in 1 row = 3 girls

3 girls in 2 rows = 6 girls

3 girls in 3 rows = 9 girls

3 girls in 4 rows = 12 girls

3 girls in 5 rows = 15 girls

3 girls in 6 rows = 18 girls

go to B

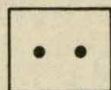
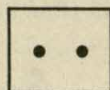
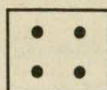
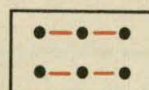
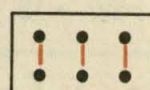
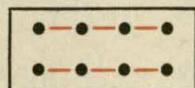
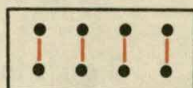
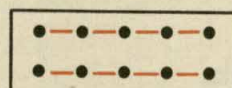
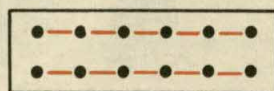
B **Complete each column:**

$3 \times 1 = 3$	$1 \times 3 = 3$	$3 \times 2 = 6$	$3 \times 2 = 6$	$3 \times 3 = 9$	$2 \times 3 = 6$
$3 \times 2 = 6$	$2 \times 3 = 6$	$3 \times 3 = 9$	$3 \times 1 = 3$	$4 \times 3 = 12$	$3 \times 1 = 3$
$3 \times 3 = 9$	$3 \times 3 = 9$	$3 \times 5 = 15$	$3 \times 3 = 9$	$5 \times 3 = 15$	$3 \times 3 = 9$
$3 \times 4 = 12$	$4 \times 3 = 12$	$3 \times 1 = 3$	$3 \times 6 = 18$	$1 \times 3 = 3$	$6 \times 3 = 18$
$3 \times 5 = 15$	$5 \times 3 = 15$	$3 \times 4 = 12$	$3 \times 4 = 12$	$6 \times 3 = 18$	$5 \times 3 = 15$
$3 \times 6 = 18$	$6 \times 3 = 18$	$3 \times 6 = 18$	$3 \times 5 = 15$	$2 \times 3 = 6$	$3 \times 4 = 12$

go to page 41, C

A 2 × 1 = 2 2 × 3 = 6 3 × 2 = 6 2 × 2 = 4 4 × 2 = 8 5 × 2 = 10 2 × 6 = 12

6 or 7 correct, go to page 43, A; 5 or less, go to B

B **Look carefully at these drawings, then work the sums below:**

2 × 1 = 2	2 × 3 = 6	2 × 2 = 4	3 × 2 = 6	4 × 2 = 8	2 × 4 = 8	5 × 2 = 10
2 × 5 = 10	5 × 2 = 10	4 × 2 = 8	2 × 2 = 4	2 × 5 = 10	6 × 2 = 12	2 × 6 = 12
2 × 6 = 12	6 × 2 = 12	1 × 2 = 2	2 × 6 = 12	2 × 3 = 6	2 × 5 = 10	3 × 2 = 6
2 × 3 = 6	2 × 4 = 8	2 × 3 = 6	4 × 2 = 8	2 × 5 = 10	2 × 6 = 12	2 × 2 = 4
4 × 2 = 8	5 × 2 = 10	2 × 4 = 8	5 × 2 = 10	6 × 2 = 12	2 × 4 = 8	2 × 6 = 12
2 × 5 = 10	2 × 4 = 8	2 × 6 = 12	2 × 3 = 6	2 × 2 = 4	2 × 6 = 12	2 × 5 = 10
2 × 3 = 6	3 × 2 = 6	2 × 5 = 10	5 × 2 = 10	2 × 4 = 8	4 × 2 = 8	2 × 6 = 12
6 × 2 = 12	2 × 2 = 4	2 × 4 = 8	2 × 1 = 2	6 × 2 = 12	3 × 2 = 6	2 × 5 = 10

go to page 43, A

A $3 \times 1 = 3$ $3 \times 3 = 9$ $2 \times 3 = 6$ $3 \times 5 = 15$ $5 \times 3 = 15$ $4 \times 3 = 12$ $3 \times 6 = 18$

6 or 7 correct, go to page 42, D; 5 or less, go to B

B **Complete by writing the answers below the line:**

$3 \times$	1	2	3	4	5	6
	3	6	9	12	15	18

go to C

C

$3 \times 2 = 6$ $2 \times 3 = 6$ $3 \times 1 = 3$ $3 \times 3 = 9$ $2 \times 3 = 6$ $3 \times 2 = 6$ $3 \times 4 = 12$

$2 \times 3 = 6$ $3 \times 4 = 12$ $3 \times 5 = 15$ $6 \times 3 = 18$ $4 \times 3 = 12$ $3 \times 2 = 6$ $3 \times 6 = 18$

$3 \times 1 = 3$ $3 \times 2 = 6$ $3 \times 4 = 12$ $3 \times 3 = 9$ $3 \times 2 = 6$ $3 \times 6 = 18$ $4 \times 3 = 12$

$6 \times 3 = 18$ $5 \times 3 = 15$ $2 \times 3 = 6$ $3 \times 4 = 12$ $3 \times 5 = 15$ $3 \times 3 = 9$ $5 \times 3 = 15$

$4 \times 3 = 12$ $3 \times 6 = 18$ $3 \times 5 = 15$ $6 \times 3 = 18$ $3 \times 4 = 12$ $6 \times 3 = 18$ $3 \times 2 = 6$

$3 \times 3 = 9$ $4 \times 3 = 12$ $3 \times 6 = 18$ $3 \times 4 = 12$ $3 \times 6 = 18$ $3 \times 5 = 15$ $6 \times 3 = 18$

go to page 46, A

D $5 \times 1 = 5$ $5 \times 3 = 15$ $3 \times 5 = 15$ $4 \times 5 = 20$ $5 \times 2 = 10$ $6 \times 5 = 30$ $5 \times 5 = 25$

6 or 7 correct, go to page 47, C; 5 or less, go to E

E **Complete by writing the answers below the line:**

$5 \times$	1	2	3	4	5	6
	5	10	15	20	25	30

go to F

F

$5 \times 2 = 10$ $2 \times 5 = 10$ $5 \times 4 = 20$ $4 \times 5 = 20$ $5 \times 5 = 25$ $5 \times 6 = 30$ $6 \times 5 = 30$

$5 \times 1 = 5$ $5 \times 3 = 15$ $5 \times 5 = 25$ $3 \times 5 = 15$ $4 \times 5 = 20$ $5 \times 4 = 20$ $2 \times 5 = 10$

$5 \times 6 = 30$ $6 \times 5 = 30$ $5 \times 5 = 25$ $5 \times 6 = 30$ $5 \times 3 = 15$ $2 \times 5 = 10$ $3 \times 5 = 15$

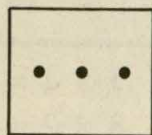
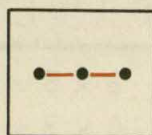
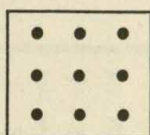
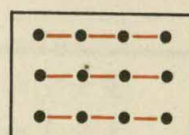
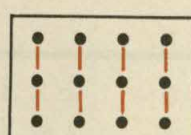
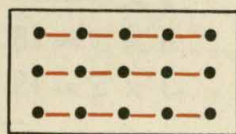
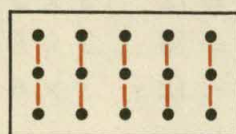
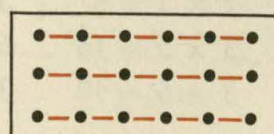
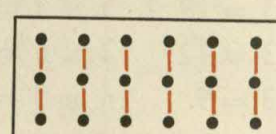
$5 \times 3 = 15$ $5 \times 5 = 25$ $5 \times 6 = 30$ $5 \times 5 = 25$ $5 \times 3 = 15$ $5 \times 6 = 30$ $5 \times 2 = 10$

$5 \times 2 = 10$ $5 \times 6 = 30$ $4 \times 5 = 20$ $6 \times 5 = 30$ $5 \times 4 = 20$ $5 \times 5 = 25$ $5 \times 3 = 15$

go to page 47, A

A $2 \times 3 = 6$ $3 \times 1 = 3$ $3 \times 4 = 12$ $4 \times 3 = 12$ $5 \times 3 = 15$ $3 \times 3 = 9$ $3 \times 6 = 18$

6 or 7 correct, go to page 42, D; 5 or less, go to B

B **Look carefully at these drawings, then work the sums below:**

$3 \times 3 = 9$	$4 \times 3 = 12$	$3 \times 4 = 12$	$2 \times 3 = 6$	$3 \times 6 = 18$	$6 \times 3 = 18$	$5 \times 3 = 15$
$3 \times 1 = 3$	$5 \times 3 = 15$	$3 \times 3 = 9$	$1 \times 3 = 3$	$3 \times 5 = 15$	$4 \times 3 = 12$	$3 \times 3 = 9$
$3 \times 2 = 6$	$4 \times 3 = 12$	$6 \times 3 = 18$	$3 \times 4 = 12$	$3 \times 3 = 9$	$5 \times 3 = 15$	$3 \times 6 = 18$
$3 \times 1 = 3$	$1 \times 3 = 3$	$3 \times 2 = 6$	$3 \times 3 = 9$	$3 \times 4 = 12$	$4 \times 3 = 12$	$3 \times 5 = 15$
$2 \times 3 = 6$	$5 \times 3 = 15$	$3 \times 3 = 9$	$3 \times 4 = 12$	$2 \times 3 = 6$	$3 \times 5 = 15$	$3 \times 6 = 18$
$3 \times 6 = 18$	$6 \times 3 = 18$	$3 \times 5 = 15$	$5 \times 3 = 15$	$3 \times 6 = 18$	$3 \times 2 = 6$	$3 \times 3 = 9$
$3 \times 2 = 6$	$3 \times 4 = 12$	$3 \times 3 = 9$	$2 \times 3 = 6$	$3 \times 4 = 12$	$4 \times 3 = 12$	$3 \times 2 = 6$
$5 \times 3 = 15$	$2 \times 3 = 6$	$4 \times 3 = 12$	$6 \times 3 = 18$	$5 \times 3 = 15$	$3 \times 6 = 18$	$3 \times 4 = 12$
$3 \times 4 = 12$	$3 \times 6 = 18$	$3 \times 5 = 15$	$5 \times 3 = 15$	$3 \times 4 = 12$	$3 \times 5 = 15$	$6 \times 3 = 18$

go to page 42, D

A 5 × 1 = 5 5 × 3 = 15 3 × 5 = 15 5 × 2 = 10 5 × 5 = 25 4 × 5 = 20 5 × 6 = 30

6 or 7 correct, go to C; 5 or less, go to B

B

5 × 2 = 10	2 × 5 = 10	5 × 4 = 20	4 × 5 = 20	5 × 3 = 15	3 × 5 = 15	5 × 5 = 25
5 × 5 = 25	3 × 5 = 15	5 × 3 = 15	1 × 5 = 5	5 × 1 = 5	5 × 4 = 20	4 × 5 = 20
5 × 6 = 30	6 × 5 = 30	5 × 2 = 10	2 × 5 = 10	5 × 3 = 15	5 × 6 = 30	3 × 5 = 15
2 × 5 = 10	4 × 5 = 20	5 × 6 = 30	5 × 4 = 20	5 × 5 = 25	4 × 5 = 20	2 × 5 = 10
5 × 6 = 30	5 × 5 = 25	5 × 4 = 20	6 × 5 = 30	5 × 4 = 20	5 × 3 = 15	5 × 6 = 30
5 × 4 = 20	6 × 5 = 30	5 × 5 = 25	4 × 5 = 20	5 × 3 = 15	5 × 6 = 30	5 × 5 = 25
5 × 5 = 25	2 × 5 = 10	5 × 3 = 15	5 × 6 = 30	5 × 5 = 25	5 × 4 = 20	6 × 5 = 30
5 × 1 = 5	3 × 5 = 15	5 × 2 = 10	5 × 3 = 15	4 × 5 = 20	6 × 5 = 30	3 × 5 = 15

go to C

C **Complete by writing the answers below the line:**

4 ×	1	2	3	4	5	6
	4	8	12	16	20	24

go to D

D

4 × 2 = 8	4 × 3 = 12	4 × 1 = 4	4 × 6 = 24	4 × 4 = 16	4 × 6 = 24	4 × 5 = 20
4 × 1 = 4	4 × 2 = 8	2 × 4 = 8	4 × 4 = 16	4 × 3 = 12	3 × 4 = 12	4 × 6 = 24
4 × 5 = 20	5 × 4 = 20	4 × 6 = 24	6 × 4 = 24	4 × 2 = 8	2 × 4 = 8	4 × 5 = 20
4 × 6 = 24	4 × 3 = 12	3 × 4 = 12	4 × 5 = 20	4 × 4 = 16	5 × 4 = 20	4 × 4 = 16
4 × 5 = 20	4 × 4 = 16	4 × 2 = 8	6 × 4 = 24	4 × 6 = 24	6 × 4 = 24	4 × 4 = 16
4 × 4 = 16	4 × 2 = 8	6 × 4 = 24	4 × 4 = 16	4 × 3 = 12	4 × 5 = 20	4 × 6 = 24
4 × 2 = 8	4 × 4 = 16	4 × 3 = 12	4 × 6 = 24	4 × 5 = 20	4 × 4 = 16	5 × 4 = 20
4 × 6 = 24	4 × 5 = 20	4 × 6 = 24	4 × 3 = 12	4 × 4 = 16	4 × 3 = 12	6 × 4 = 24

go to page 48, A

A $4 \times 1 = 4$ $2 \times 4 = 8$ $4 \times 3 = 12$ $3 \times 4 = 12$ $5 \times 4 = 20$ $4 \times 4 = 16$ $4 \times 6 = 24$

6 or 7 correct, go to C; 5 or less, go to B

B

$4 \times 1 = 4$ $3 \times 4 = 12$ $4 \times 3 = 12$ $4 \times 6 = 24$ $6 \times 4 = 24$ $5 \times 4 = 20$ $4 \times 5 = 20$
$4 \times 2 = 8$ $4 \times 5 = 20$ $5 \times 4 = 20$ $4 \times 3 = 12$ $3 \times 4 = 12$ $4 \times 4 = 16$ $4 \times 6 = 24$
$6 \times 4 = 24$ $4 \times 6 = 24$ $4 \times 4 = 16$ $2 \times 4 = 8$ $4 \times 4 = 16$ $4 \times 6 = 24$ $4 \times 3 = 12$
$4 \times 4 = 16$ $3 \times 4 = 12$ $4 \times 4 = 16$ $6 \times 4 = 24$ $4 \times 4 = 16$ $4 \times 5 = 20$ $4 \times 2 = 8$
$4 \times 6 = 24$ $4 \times 4 = 16$ $4 \times 5 = 20$ $4 \times 3 = 12$ $4 \times 5 = 20$ $6 \times 4 = 24$ $4 \times 4 = 16$
$4 \times 2 = 8$ $4 \times 3 = 12$ $5 \times 4 = 20$ $4 \times 4 = 16$ $6 \times 4 = 24$ $4 \times 3 = 12$ $4 \times 6 = 24$
$4 \times 3 = 12$ $4 \times 6 = 24$ $6 \times 4 = 24$ $2 \times 4 = 8$ $4 \times 5 = 20$ $5 \times 4 = 20$ $4 \times 4 = 16$
$4 \times 2 = 8$ $4 \times 1 = 4$ $4 \times 5 = 20$ $4 \times 6 = 24$ $4 \times 3 = 12$ $4 \times 4 = 16$ $4 \times 6 = 24$

go to C

C **Complete by writing the answers below the line:**

$6 \times$	1	2	3	4	5	6
	6	12	18	24	30	36

go to D

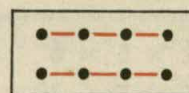
D

$6 \times 2 = 12$ $2 \times 6 = 12$ $6 \times 1 = 6$ $3 \times 6 = 18$ $6 \times 3 = 18$ $5 \times 6 = 30$ $6 \times 5 = 30$
$6 \times 4 = 24$ $4 \times 6 = 24$ $6 \times 5 = 30$ $6 \times 6 = 36$ $5 \times 6 = 30$ $4 \times 6 = 24$ $6 \times 4 = 24$
$6 \times 6 = 36$ $6 \times 5 = 30$ $6 \times 3 = 18$ $4 \times 6 = 24$ $3 \times 6 = 18$ $6 \times 5 = 30$ $6 \times 6 = 36$
$5 \times 6 = 30$ $4 \times 6 = 24$ $6 \times 6 = 36$ $6 \times 3 = 18$ $6 \times 6 = 36$ $6 \times 4 = 24$ $6 \times 2 = 12$
$6 \times 3 = 18$ $6 \times 5 = 30$ $6 \times 2 = 12$ $6 \times 4 = 24$ $6 \times 1 = 6$ $6 \times 3 = 18$ $6 \times 6 = 36$
$6 \times 4 = 24$ $6 \times 6 = 36$ $6 \times 5 = 30$ $6 \times 3 = 18$ $4 \times 6 = 24$ $6 \times 6 = 36$ $5 \times 6 = 30$
$6 \times 5 = 30$ $6 \times 3 = 18$ $3 \times 6 = 18$ $6 \times 6 = 36$ $6 \times 5 = 30$ $5 \times 6 = 30$ $6 \times 4 = 24$
$6 \times 2 = 12$ $6 \times 5 = 30$ $6 \times 6 = 36$ $6 \times 4 = 24$ $6 \times 1 = 6$ $6 \times 3 = 18$ $6 \times 6 = 36$

go to page 50, A

A **Look carefully at these drawings, then work the sums below:**

3 × 0   5 × 0   2 × 0

1 × 1   3 × 1   2 × 4

2 × 1 = 2   2 × 0 = 0   3 × 1 = 3   3 × 0 = 0   4 × 2 = 8   4 × 0 = 0   5 × 3 = 15
3 × 3 = 9   3 × 0 = 0   4 × 4 = 16   4 × 1 = 4   4 × 0 = 0   6 × 2 = 12   2 × 6 = 12
4 × 0 = 0   5 × 5 = 25   5 × 0 = 0   2 × 1 = 2   1 × 2 = 2   4 × 5 = 20   4 × 0 = 0
2 × 6 = 12   2 × 5 = 10   4 × 4 = 16   2 × 3 = 6   6 × 0 = 0   2 × 4 = 8   1 × 3 = 3
1 × 0 = 0   2 × 4 = 8   3 × 2 = 6   4 × 0 = 0   2 × 2 = 4   3 × 3 = 9   5 × 0 = 0
2 × 6 = 12   3 × 3 = 9   3 × 5 = 15   3 × 4 = 12   4 × 2 = 8   3 × 6 = 18   6 × 2 = 12
4 × 4 = 16   6 × 5 = 30   4 × 6 = 24   5 × 6 = 30   6 × 0 = 0   6 × 6 = 36   6 × 5 = 30

go to page 50, C

B **Speed practice:**

9 + 3 = 12   3 + 9 = 12   12 − 9 = 3   12 − 3 = 9   9 + 2 = 11   2 + 9 = 11   11 − 9 = 2
11 − 2 = 9   7 − 7 = 0   7 − 0 = 7   8 + 4 = 12   4 + 8 = 12   12 − 4 = 8   12 − 8 = 4
7 + 5 = 12   5 + 7 = 12   12 − 7 = 5   12 − 5 = 7   6 + 4 = 10   10 − 6 = 4   10 − 4 = 6
6 + 6 = 12   12 − 6 = 6   5 + 5 = 10   10 − 5 = 5   6 + 5 = 11   5 + 6 = 11   11 − 5 = 6
11 − 6 = 5   11 − 5 = 6   7 + 4 = 11   4 + 7 = 11   11 − 4 = 7   11 − 7 = 4   0 + 0 = 0
8 + 3 = 11   3 + 8 = 11   11 − 8 = 3   11 − 3 = 8   12 − 7 = 5   9 − 6 = 3   6 + 7 = 13
12 − 3 = 9   11 − 7 = 4   6 + 7 = 13   5 + 6 = 11   9 − 7 = 2   6 + 7 = 13   8 − 5 = 3
7 − 7 = 0   8 + 5 = 13   4 + 8 = 12   9 − 6 = 3   10 − 7 = 3   4 + 7 = 11   11 − 4 = 7
4 + 9 = 13   9 − 5 = 4   9 + 6 = 15   12 − 7 = 5   5 + 8 = 13   10 − 5 = 5   12 − 9 = 3

go to page 51, A

A

$2 \times 6 = 12$ $6 \times 1 = 6$ $6 \times 3 = 18$ $6 \times 4 = 24$ $4 \times 6 = 24$ $6 \times 6 = 36$ $5 \times 6 = 30$

6 or 7 correct, go to page 49, A; 5 or less, go to B

B

$6 \times 1 = 6$ $1 \times 6 = 6$ $6 \times 3 = 18$ $3 \times 6 = 18$ $4 \times 6 = 24$ $6 \times 4 = 24$ $2 \times 6 = 12$
$5 \times 6 = 30$ $6 \times 5 = 30$ $6 \times 4 = 24$ $6 \times 6 = 36$ $6 \times 2 = 12$ $5 \times 6 = 30$ $6 \times 6 = 36$
$6 \times 6 = 36$ $6 \times 3 = 18$ $6 \times 5 = 30$ $6 \times 4 = 24$ $6 \times 3 = 18$ $6 \times 6 = 36$ $6 \times 5 = 30$
$2 \times 6 = 12$ $6 \times 4 = 24$ $6 \times 6 = 36$ $5 \times 6 = 30$ $6 \times 5 = 30$ $6 \times 3 = 18$ $4 \times 6 = 24$
$4 \times 6 = 24$ $5 \times 6 = 30$ $6 \times 5 = 30$ $6 \times 6 = 36$ $6 \times 4 = 24$ $5 \times 6 = 30$ $6 \times 3 = 18$
$6 \times 6 = 36$ $6 \times 2 = 12$ $6 \times 4 = 24$ $6 \times 5 = 30$ $3 \times 6 = 18$ $6 \times 6 = 36$ $4 \times 6 = 24$
$6 \times 3 = 18$ $1 \times 6 = 6$ $6 \times 6 = 36$ $4 \times 6 = 24$ $6 \times 6 = 36$ $6 \times 4 = 24$ $6 \times 5 = 30$

go to page 49,

C

$3 \times 1 = 3$ $3 \times 0 = 0$ $2 \times 2 = 4$ $2 \times 0 = 0$ $6 \times 3 = 18$ $6 \times 0 = 0$ $1 \times 0 = 0$

6 or 7 correct, go to page 49, B; 5 or less, go to D

D

$1 \times 1 = 1$ $1 \times 0 = 0$ $2 \times 1 = 2$ $2 \times 0 = 0$ $6 \times 1 = 6$ $6 \times 0 = 0$ $4 \times 1 = 4$
$4 \times 0 = 0$ $3 \times 0 = 0$ $4 \times 3 = 12$ $5 \times 0 = 0$ $4 \times 5 = 20$ $5 \times 3 = 15$ $4 \times 6 = 24$
$6 \times 2 = 12$ $4 \times 0 = 0$ $5 \times 5 = 25$ $5 \times 4 = 20$ $6 \times 3 = 18$ $4 \times 0 = 0$ $6 \times 4 = 24$
$5 \times 0 = 0$ $6 \times 4 = 24$ $6 \times 6 = 36$ $6 \times 5 = 30$ $3 \times 5 = 15$ $4 \times 4 = 16$ $6 \times 6 = 36$
$3 \times 6 = 18$ $4 \times 5 = 20$ $5 \times 4 = 20$ $6 \times 2 = 12$ $6 \times 5 = 30$ $5 \times 3 = 15$ $4 \times 5 = 20$
$3 \times 0 = 0$ $4 \times 4 = 16$ $6 \times 6 = 36$ $5 \times 3 = 15$ $5 \times 0 = 0$ $3 \times 3 = 9$ $3 \times 0 = 0$
$6 \times 4 = 24$ $6 \times 0 = 0$ $5 \times 0 = 0$ $5 \times 5 = 25$ $6 \times 5 = 30$ $2 \times 0 = 0$ $6 \times 6 = 36$
$5 \times 0 = 0$ $5 \times 4 = 20$ $1 \times 0 = 0$ $4 \times 0 = 0$ $3 \times 4 = 12$ $4 \times 6 = 24$ $2 \times 0 = 0$
$4 \times 6 = 24$ $3 \times 5 = 15$ $4 \times 5 = 20$ $6 \times 4 = 24$ $6 \times 0 = 0$ $6 \times 6 = 36$ $5 \times 6 = 30$
$3 \times 0 = 0$ $2 \times 0 = 0$ $2 \times 1 = 2$ $5 \times 0 = 0$ $5 \times 5 = 25$ $6 \times 1 = 6$ $6 \times 0 = 0$

go to page 49, B

A **Work across the page:** **Add + Plus + Total**

Add 5 and 2 7	add 6 and 1 7	add 6 and 0 6	add 7 and 0 7	add 0 and 5 5
Add 0 to 3 3	add 0 to 6 6	add 7 and 1 8	add 6 and 4 10	add 3 and 6 9

8 plus 1 = 9	9 plus 1 = 10	8 plus 0 = 8	9 plus 0 = 9	5 plus 3 = 8	4 plus 4 = 8
6 plus 5 = 11	9 plus 2 = 11	7 plus 3 = 10	8 plus 4 = 12	6 plus 3 = 9	7 plus 4 = 11

If the total of 4 and 2 is 6, what is the total of 2 and 4? 6

If the total of 0 and 3 is 3, what is the total of 3 and 0? 3

Total of 5 and 6 = 11	total of 7 and 0 = 7	total of 9 and 3 = 12	total of 10 and 4 = 14
Total of 10 and 3 = 13	total of 9 and 4 = 13	total of 8 and 6 = 14	total of 6 and 7 = 13

go to B

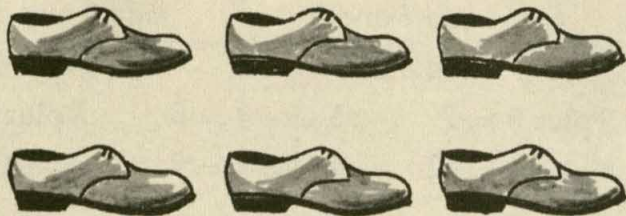
B **Minus − Subtract**

From 10 take 8 2	from 8 take 6 2	take 10 from 12 2	take 9 from 11 2	from 9 take 3 6
Take 7 from 9 2	from 12 take 3 9	from 11 take 8 3	take 6 from 9 3	take 7 from 10 3
2 from 4 = 2	4 from 11 = 7	0 from 6 = 6	5 from 8 = 3	3 from 8 = 5
3 from 7 = 4	4 from 8 = 4	7 from 10 = 3	3 from 10 = 7	4 from 9 = 5
9 minus 8 = 1	11 minus 3 = 8	8 minus 8 = 0	9 minus 0 = 9	12 minus 5 = 7
12 minus 4 = 8	10 minus 3 = 7	12 minus 8 = 4	11 minus 6 = 5	12 minus 9 = 3

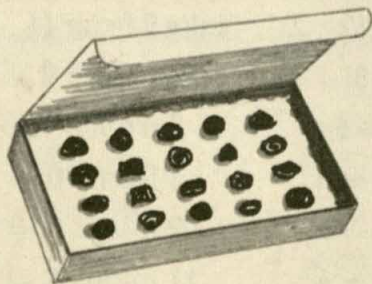
Subtract 7 from 11 4	subtract 5 from 8 3	subtract 7 from 10 3	subtract 5 from 9 4
Subtract 5 from 10 5	subtract 6 from 9 3	subtract 6 from 11 5	subtract 7 from 12 5
From 9 subtract 7 2	from 12 subtract 6 6	from 7 subtract 3 4	from 11 subtract 8 3
From 11 subtract 4 7	from 10 subtract 8 2	from 9 subtract 4 5	from 12 subtract 5 7

go to page 52, A

How many? ÷

A **Complete:**

How many rows of shoes? 2
How many shoes in each row? 3
How many shoes altogether? 6
How many pairs of shoes? 3

Are there more rows of 3 than there are shoes altogether? No
Are there more pairs of shoes than there are shoes altogether? No
Are there more shoes than there are pairs of shoes? Yes
Are there more shoes than there are rows of 3 shoes? Yes

$6 = 3 \times 2$ $6 \div 3 = 2$ $6 = 2 \times 3$ $6 \div 2 = 3$ $6 \div 3 = 2$ $6 \div 2 = 3$

How many chocolates? 20
How many boys can have 4 each? 5
How many girls can have 5 each? 4
$4 \times 5 = 20$ $5 \times 4 = 20$

$4 \times 5 = 20$ $5 \times 4 = 20$ $20 = 4 \times 5$ $20 \div 4 = 5$ $20 = 5 \times 4$ $20 \div 5 = 4$

go to B

B $6 \div 3 = 2$ $6 \div 2 = 3$ $20 \div 5 = 4$ $20 \div 4 = 5$ $6 \div 3 = 2$ $6 \div 6 = 1$ $6 \div 2 = 3$
$20 \div 4 = 5$ $20 \div 5 = 4$ $6 \div 2 = 3$ $6 \div 3 = 2$ $20 \div 5 = 4$ $20 \div 4 = 5$ $6 \div 6 = 1$

go to page 53, A

A You have practised tables to 6×6. Copy the tables square below and complete it by multiplying each number in the top row by each figure in the left column, placing your answer in the square beneath the first number and in line with the figure by which you are multiplying.

In your square you will find that four of the answers are the number 12, coming from 2×6, 6×2, 3×4, 4×3.
This tells us that

$$12 \div 2 = 6 \text{ and } 12 \div 6 = 2,\ 12 \div 3 = 4 \text{ and } 12 \div 4 = 3$$

In the same way you can find all the pairs of numbers which can be multiplied together to make each of the numbers in the square.

	1	2	3	4	5	6
1	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24
5	5	10	15	20	25	30
6	6	12	18	24	30	36

Use the square to complete the answers in B

B **Practice:**

$2 \times 2 = 4$	$4 \div 2 = 2$	$2 \times 1 = 2$	$2 \div 2 = 1$	$3 \times 1 = 3$	$3 \div 3 = 1$	$4 \div 4 = 1$
$2 \times 3 = 6$	$6 \div 2 = 3$	$6 \div 3 = 2$	$3 \times 3 = 9$	$9 \div 3 = 3$	$4 \times 2 = 8$	$8 \div 4 = 2$
$8 \div 2 = 4$	$5 \times 2 = 10$	$10 \div 5 = 2$	$10 \div 2 = 5$	$2 \times 6 = 12$	$12 \div 2 = 6$	$12 \div 6 = 2$
$5 \times 3 = 15$	$15 \div 5 = 3$	$3 \times 5 = 15$	$15 \div 3 = 5$	$3 \times 4 = 12$	$4 \times 3 = 12$	$12 \div 4 = 3$
$12 \div 3 = 4$	$4 \times 4 = 16$	$16 \div 4 = 4$	$5 \times 4 = 20$	$20 \div 5 = 4$	$4 \times 5 = 20$	$20 \div 4 = 5$
$8 \div 2 = 4$	$8 \div 4 = 2$	$9 \div 3 = 3$	$10 \div 2 = 5$	$10 \div 5 = 2$	$6 \div 3 = 2$	$6 \div 2 = 3$
$4 \div 4 = 1$	$5 \div 5 = 1$	$12 \div 2 = 6$	$12 \div 6 = 2$	$6 \div 6 = 1$	$12 \div 4 = 3$	$12 \div 3 = 4$
$16 \div 4 = 4$	$15 \div 5 = 3$	$15 \div 3 = 5$	$20 \div 4 = 5$	$20 \div 5 = 4$	$9 \div 3 = 3$	$16 \div 4 = 4$
$5 \times 5 = 25$	$25 \div 5 = 5$	$3 \times 6 = 18$	$18 \div 3 = 6$	$6 \times 3 = 18$	$18 \div 6 = 3$	$25 \div 5 = 5$
$18 \div 6 = 3$	$6 \times 4 = 24$	$24 \div 6 = 4$	$4 \times 6 = 24$	$24 \div 4 = 6$	$6 \times 6 = 36$	$36 \div 6 = 6$
$36 \div 6 = 6$	$18 \div 3 = 6$	$6 \times 5 = 30$	$30 \div 6 = 5$	$5 \times 6 = 30$	$30 \div 5 = 6$	$24 \div 6 = 4$

go to page 54, A

A	$2 \div 2 = 1$	$3 \div 3 = 1$	$4 \div 2 = 2$	$6 \div 2 = 3$	$6 \div 3 = 2$	$8 \div 2 = 4$	$8 \div 4 = 2$

6 or 7 correct, go to C; 5 or less, go to B

B	$2 \times 1 = 2$	$2 = 1 \times 2$	$2 \times 1 = 2$	$1 \times 2 = 2$	$2 \div 2 = 1$	$3 = 3 \times 1$	$3 \div 3 = 1$
	$2 \times 2 = 4$	$4 = 2 \times 2$	$4 \div 2 = 2$	$3 \times 2 = 6$	$2 \times 3 = 6$	$6 = 2 \times 3$	$6 \div 2 = 3$
	$6 = 3 \times 2$	$6 \div 3 = 2$	$2 \div 2 = 1$	$3 \div 3 = 1$	$6 \div 2 = 3$	$6 \div 3 = 2$	$4 \div 2 = 2$
	$2 \times 4 = 8$	$8 = 2 \times 4$	$8 \div 2 = 4$	$4 \times 2 = 8$	$8 = 4 \times 2$	$8 \div 4 = 2$	$8 \div 2 = 4$
	$8 \div 2 = 4$	$8 \div 4 = 2$	$6 \div 3 = 2$	$4 \div 2 = 2$	$3 \div 3 = 1$	$6 \div 2 = 3$	$8 \div 4 = 2$

go to page 56, A

C	$9 \div 3 = 3$	$10 \div 2 = 5$	$10 \div 5 = 2$	$5 \div 5 = 1$	$12 \div 3 = 4$	$12 \div 4 = 3$	$16 \div 4 = 4$

6 or 7 correct, go to E; 5 or less, go to D

D	$2 \times 5 = 10$	$10 = 2 \times 5$	$10 \div 2 = 5$	$5 \times 2 = 10$	$10 = 5 \times 2$	$10 \div 5 = 2$	$10 \div 2 = 5$
	$3 \times 3 = 9$	$9 = 3 \times 3$	$9 \div 3 = 3$	$4 \times 4 = 16$	$16 = 4 \times 4$	$16 \div 4 = 4$	$9 \div 3 = 3$
	$10 \div 5 = 2$	$10 \div 2 = 5$	$3 \times 4 = 12$	$12 = 3 \times 4$	$12 \div 3 = 4$	$12 = 4 \times 3$	$12 \div 4 = 3$
	$12 \div 3 = 4$	$12 \div 4 = 3$	$16 \div 4 = 4$	$9 \div 3 = 3$	$10 \div 5 = 2$	$9 \div 3 = 3$	$10 \div 2 = 5$

go to page 56, C

E	$12 \div 2 = 6$	$12 \div 6 = 2$	$15 \div 3 = 5$	$18 \div 3 = 6$	$18 \div 6 = 3$	$15 \div 5 = 3$	$25 \div 5 = 5$

6 or 7 correct, go to 55, A; 5 or less, go to F

F	$3 \times 5 = 15$	$3 \times 5 = 15$	$15 = 3 \times 5$	$15 \div 3 = 5$	$15 \div 5 = 3$	$12 = 2 \times 6$	$12 \div 2 = 6$
	$2 \times 6 = 12$	$12 \div 2 = 6$	$6 \times 2 = 12$	$6 \times 2 = 12$	$12 \div 6 = 2$	$15 = 5 \times 3$	$15 \div 5 = 3$
	$5 \times 5 = 25$	$25 = 5 \times 5$	$25 \div 5 = 5$	$3 \times 6 = 18$	$3 \times 6 = 18$	$6 \times 3 = 18$	$18 \div 6 = 3$
	$18 \div 3 = 6$	$12 \div 6 = 2$	$15 \div 3 = 5$	$18 \div 6 = 3$	$25 \div 5 = 5$	$15 \div 5 = 3$	$25 \div 5 = 5$

go to page 56, E

A $20 \div 4 = 5$ $24 \div 6 = 4$ $24 \div 4 = 6$ $36 \div 6 = 6$ $20 \div 5 = 4$ $30 \div 5 = 6$ $30 \div 6 = 5$

6 or 7 correct, go to C; 5 or less, go to B

B

$4 \times 6 = 24$	$6 \times 4 = 24$	$4 \times 6 = 24$	$24 \div 6 = 4$	$24 \div 4 = 6$	$24 \div 6 = 4$	$24 \div 4 = 6$
$5 \times 4 = 20$	$20 \div 5 = 4$	$4 \times 5 = 20$	$20 \div 4 = 5$	$20 \div 5 = 4$	$20 \div 4 = 5$	$20 \div 5 = 4$
$6 \times 6 = 36$	$6 \times 6 = 36$	$36 \div 6 = 6$	$6 \times 5 = 30$	$5 \times 6 = 30$	$30 \div 6 = 5$	$36 \div 6 = 6$
$30 \div 5 = 6$	$24 \div 4 = 6$	$20 \div 5 = 4$	$36 \div 6 = 6$	$24 \div 6 = 4$	$20 \div 4 = 5$	$30 \div 6 = 5$
$36 \div 6 = 6$	$30 \div 6 = 5$	$24 \div 6 = 4$	$24 \div 4 = 6$	$20 \div 5 = 4$	$36 \div 6 = 6$	$30 \div 5 = 6$

go to page 57, B

C **Practice:**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

$11 + 2 = 13$	$12 + 2 = 14$	$11 + 0 = 11$	$12 + 0 = 12$	$13 + 2 = 15$	$9 + 0 = 9$	$11 + 2 = 13$
$11 + 4 = 15$	$13 + 2 = 15$	$12 + 3 = 15$	$9 + 5 = 14$	$11 + 4 = 15$	$8 + 6 = 14$	$12 + 3 = 15$
$12 + 3 = 15$	$9 + 5 = 14$	$11 + 4 = 15$	$12 + 2 = 14$	$13 + 3 = 16$	$11 + 3 = 14$	$12 + 0 = 12$
$8 + 6 = 14$	$11 + 3 = 14$	$13 + 2 = 15$	$11 + 5 = 16$	$12 + 4 = 16$	$9 + 5 = 14$	$13 + 3 = 16$
$13 + 0 = 13$	$13 + 3 = 16$	$8 + 6 = 14$	$12 + 5 = 17$	$14 + 2 = 16$	$11 + 5 = 16$	$12 + 4 = 16$
$11 + 5 = 16$	$14 + 2 = 16$	$12 + 4 = 16$	$14 + 3 = 17$	$9 + 6 = 15$	$12 + 5 = 17$	$14 + 2 = 16$
$14 + 3 = 17$	$12 + 5 = 17$	$9 + 6 = 15$	$11 + 6 = 17$	$14 + 3 = 17$	$11 + 7 = 18$	$11 + 6 = 17$
$9 + 6 = 15$	$11 + 7 = 18$	$8 + 7 = 15$	$10 + 7 = 17$	$13 + 4 = 17$	$8 + 7 = 15$	$12 + 6 = 18$
$11 + 6 = 17$	$10 + 7 = 17$	$13 + 4 = 17$	$11 + 7 = 18$	$12 + 6 = 18$	$14 + 4 = 18$	$13 + 5 = 18$
$12 + 6 = 18$	$8 + 7 = 15$	$15 + 2 = 17$	$14 + 4 = 18$	$10 + 7 = 17$	$13 + 4 = 17$	$11 + 7 = 18$
$14 + 4 = 18$	$13 + 6 = 19$	$14 + 5 = 19$	$12 + 6 = 18$	$13 + 5 = 18$	$15 + 2 = 17$	$13 + 6 = 19$
$15 + 3 = 18$	$13 + 5 = 18$	$9 + 7 = 16$	$15 + 3 = 18$	$14 + 5 = 19$	$15 + 4 = 19$	$14 + 6 = 20$
$13 + 6 = 19$	$9 + 7 = 16$	$7 + 9 = 16$	$15 + 4 = 19$	$14 + 6 = 20$	$7 + 8 = 15$	$15 + 3 = 18$

go to page 57, D

A $4 \div 2 = 2$ $3 \div 3 = 1$ $6 \div 3 = 2$ $2 \div 2 = 1$ $6 \div 2 = 3$ $8 \div 4 = 2$ $8 \div 2 = 4$

6 or 7 correct, go to page 54, C; 5 or less, go to B

B

$2 \times 1 = 2$ $2 \times 1 = 2$ $2 = 2 \times 1$ $2 = 1 \times 2$ $2 \div 2 = 1$ $3 \times 1 = 3$ $3 \div 3 = 1$

$4 \times 1 = 4$ $4 \div 4 = 1$ $2 \times 2 = 4$ $4 = 2 \times 2$ $4 = 2 \times 2$ $4 \div 2 = 2$ $2 \div 2 = 1$

$6 = 2 \times 3$ $6 \div 2 = 3$ $6 = 3 \times 2$ $6 \div 3 = 2$ $2 \times 4 = 8$ $8 = 2 \times 4$ $8 \div 2 = 4$

$4 \times 2 = 8$ $8 = 4 \times 2$ $8 \div 4 = 2$ $8 \div 2 = 4$ $4 \div 2 = 2$ $4 \div 4 = 1$ $8 \div 4 = 2$

$6 \div 3 = 2$ $6 \div 2 = 3$ $3 \div 3 = 1$ $8 \div 4 = 2$ $8 \div 4 = 2$ $6 \div 3 = 2$ $8 \div 2 = 4$

$4 \div 2 = 2$ $8 \div 4 = 2$ $8 \div 2 = 4$ $6 \div 3 = 2$ $3 \div 3 = 1$ $8 \div 4 = 2$ $6 \div 2 = 3$

go to page 54, C

C $10 \div 2 = 5$ $10 \div 5 = 2$ $9 \div 3 = 3$ $5 \div 5 = 1$ $12 \div 4 = 3$ $16 \div 4 = 4$ $12 \div 3 = 4$

6 or 7 correct, go to page 54, E; 5 or less, go to D

D

$3 \times 3 = 9$ $9 = 3 \times 3$ $9 \div 3 = 3$ $3 \times 3 = 9$ $9 \div 3 = 3$ $10 = 2 \times 5$ $10 \div 2 = 5$

$2 \times 5 = 10$ $10 \div 2 = 5$ $5 \times 2 = 10$ $10 = 5 \times 2$ $5 \times 2 = 10$ $10 \div 5 = 2$ $5 \div 5 = 1$

$12 = 3 \times 4$ $3 \times 4 = 12$ $3 \times 4 = 12$ $12 \div 3 = 4$ $4 \times 3 = 12$ $12 = 4 \times 3$ $12 \div 4 = 3$

$4 \times 4 = 16$ $4 \times 3 = 12$ $3 \times 3 = 9$ $2 \times 5 = 10$ $3 \times 4 = 12$ $5 \times 1 = 5$ $10 \div 2 = 5$

$4 \times 4 = 16$ $4 \times 4 = 16$ $16 = 4 \times 4$ $16 \div 4 = 4$ $10 \div 2 = 5$ $9 \div 3 = 3$ $12 \div 3 = 4$

$16 \div 4 = 4$ $9 \div 3 = 3$ $12 \div 3 = 4$ $10 \div 2 = 5$ $12 \div 4 = 3$ $10 \div 5 = 2$ $16 \div 4 = 4$

$12 \div 3 = 4$ $10 \div 5 = 2$ $16 \div 4 = 4$ $9 \div 3 = 3$ $16 \div 4 = 4$ $10 \div 2 = 5$ $12 \div 4 = 3$

$16 \div 4 = 4$ $12 \div 4 = 3$ $9 \div 3 = 3$ $10 \div 2 = 5$ $9 \div 3 = 3$ $12 \div 3 = 4$ $16 \div 4 = 4$

$10 \div 5 = 2$ $16 \div 4 = 4$ $12 \div \quad = 4$ $5 \div 5 = 1$ $12 \div 4 = 3$ $16 \div 2 = 8$ $8 \div 2 = 4$

go to page 54, E

E $12 \div 6 = 2$ $15 \div 5 = 3$ $25 \div 5 = 5$ $15 \div 3 = 5$ $12 \div 2 = 6$ $18 \div 6 = 3$ $18 \div 3 = 6$

6 or 7 correct, go to page 55, A; 5 or less, go to 57, A

A $12 = 6 \times 2$ $12 = 2 \times 6$ $2 \times 6 = 12$ $6 \times 2 = 12$ $12 \div 2 = 6$ $12 \div 6 = 2$ $12 \div 2 = 6$

$6 \times 3 = 18$ $6 \times 3 = 18$ $18 \div 6 = 3$ $18 \div 3 = 6$ $5 \times 3 = 15$ $3 \times 5 = 15$ $15 \div 3 = 5$

$15 \div 5 = 3$ $15 \div 3 = 5$ $15 \div 5 = 3$ $5 \times 5 = 25$ $25 = 5 \times 5$ $25 \div 5 = 5$ $15 \div 5 = 3$

$6 \times 2 = 12$ $12 \div 6 = 2$ $12 \div 2 = 6$ $6 \times 3 = 18$ $18 \div 6 = 3$ $18 \div 3 = 6$ $12 \div 6 = 2$

$15 \div 3 = 5$ $25 \div 5 = 5$ $18 \div 3 = 6$ $12 \div 2 = 6$ $15 \div 5 = 3$ $18 \div 6 = 3$ $25 \div 5 = 5$

go to page 55, A

B $24 \div 4 = 6$ $20 \div 5 = 4$ $36 \div 6 = 6$ $30 \div 5 = 6$ $30 \div 6 = 5$ $20 \div 4 = 5$ $24 \div 6 = 4$

6 or 7 correct, go to page 55, C; 5 or less, go to C

C $30 = 5 \times 6$ $30 = 6 \times 5$ $30 \div 6 = 5$ $30 \div 5 = 6$ $24 = 6 \times 4$ $24 \div 6 = 4$ $24 \div 4 = 6$

$30 \div 6 = 5$ $30 \div 5 = 6$ $24 \div 6 = 4$ $24 \div 4 = 6$ $6 \times 6 = 36$ $36 = 6 \times 6$ $36 \div 6 = 6$

$36 \div 6 = 6$ $5 \times 4 = 20$ $4 \times 5 = 20$ $5 \times 4 = 20$ $20 \div 4 = 5$ $20 \div 5 = 4$ $30 \div 5 = 6$

$24 \div 6 = 4$ $30 \div 5 = 6$ $25 \div 5 = 5$ $30 \div 6 = 5$ $36 \div 6 = 6$ $24 \div 4 = 6$ $20 \div 4 = 5$

$30 \div 6 = 5$ $20 \div 5 = 4$ $36 \div 6 = 6$ $24 \div 4 = 6$ $24 \div 6 = 4$ $20 \div 4 = 5$ $36 \div 6 = 6$

$24 \div 4 = 6$ $36 \div 6 = 6$ $20 \div 4 = 5$ $30 \div 6 = 5$ $36 \div 6 = 6$ $24 \div 6 = 4$ $30 \div 5 = 6$

go to page 55, C

D $11 + 1 = 12$ $8 + 6 = 14$ $10 + 7 = 17$ $11 + 2 = 13$ $12 + 1 = 13$ $11 + 4 = 15$ $13 + 3 = 16$

6 or 7 correct, go to page 58, C; 5 or less, go to E

E $11 + 1 = 12$ $12 + 1 = 13$ $8 + 6 = 14$ $8 + 6 = 14$ $11 + 2 = 13$ $8 + 6 = 14$ $11 + 2 = 13$

$11 + 4 = 15$ $11 + 4 = 15$ $10 + 7 = 17$ $11 + 4 = 15$ $10 + 7 = 17$ $10 + 7 = 17$ $11 + 4 = 15$

$11 + 2 = 13$ $8 + 6 = 14$ $13 + 3 = 16$ $13 + 3 = 16$ $11 + 4 = 15$ $13 + 3 = 16$ $10 + 7 = 17$

$13 + 3 = 16$ $11 + 4 = 15$ $8 + 6 = 14$ $10 + 7 = 17$ $13 + 3 = 16$ $11 + 2 = 13$ $8 + 6 = 14$

go to page 58, A

A 12 + 1 = 13 10 + 7 = 17 11 + 1 = 12 11 + 4 = 15 8 + 6 = 14 11 + 2 = 13 13 + 3 = 16

6 or 7 correct, go to C; 5 or less, go to B

B

12 + 1 = 13	11 + 1 = 12	11 + 2 = 13	11 + 4 = 15	11 + 4 = 15	11 + 2 = 13	12 + 1 = 13
10 + 7 = 17	10 + 7 = 17	13 + 3 = 16	13 + 3 = 16	10 + 7 = 17	13 + 3 = 16	10 + 7 = 17
13 + 3 = 16	8 + 6 = 14	8 + 6 = 14	12 + 1 = 13	8 + 6 = 14	11 + 1 = 12	8 + 6 = 14
11 + 2 = 13	11 + 2 = 13	11 + 4 = 15	8 + 6 = 14	13 + 3 = 16	10 + 7 = 17	11 + 2 = 13
8 + 6 = 14	10 + 7 = 17	11 + 2 = 13	13 + 3 = 16	11 + 4 = 15	8 + 6 = 14	13 + 3 = 16

go to C

C 11 + 3 = 14 12 + 2 = 14 9 + 5 = 14 8 + 7 = 15 11 + 6 = 17 13 + 2 = 15 14 + 1 = 15

6 or 7 correct, go to E; 5 or less, go to D

D

12 + 2 = 14	12 + 2 = 14	11 + 3 = 14	11 + 6 = 17	11 + 3 = 14	11 + 6 = 17	11 + 6 = 17
13 + 2 = 15	14 + 1 = 15	13 + 2 = 15	9 + 5 = 14	9 + 5 = 14	13 + 2 = 15	9 + 5 = 14
11 + 6 = 17	9 + 5 = 14	12 + 2 = 14	8 + 7 = 15	8 + 7 = 15	12 + 2 = 14	8 + 7 = 15
8 + 7 = 15	13 + 2 = 15	8 + 7 = 15	9 + 5 = 14	11 + 6 = 17	8 + 7 = 15	9 + 5 = 14

go to page 60, A

E 12 + 3 = 15 13 + 5 = 18 12 + 6 = 18 14 + 2 = 16 11 + 5 = 16 14 + 3 = 17 9 + 6 = 15

6 or 7 correct, go to page 59, A; 5 or less, go to F

F

14 + 2 = 16	14 + 3 = 17	14 + 3 = 17	14 + 2 = 16	13 + 5 = 18	14 + 2 = 16	13 + 5 = 18
13 + 5 = 18	14 + 3 = 17	12 + 3 = 15	12 + 3 = 15	11 + 5 = 16	11 + 5 = 16	14 + 3 = 17
11 + 5 = 16	9 + 6 = 15	9 + 6 = 15	11 + 5 = 16	9 + 6 = 15	13 + 5 = 18	9 + 6 = 15
12 + 6 = 18	14 + 2 = 16	13 + 5 = 18	9 + 6 = 15	14 + 3 = 17	9 + 6 = 15	12 + 6 = 18

go to page 60, C

A 11 + 0 = 11 14 + 3 = 17 11 + 7 = 18 12 + 5 = 17 14 + 6 = 20 6 + 7 = 13 13 + 4 = 17

6 or 7 correct, go to C; 5 or less, go to B

B

1 + 0 = 1	6 + 0 = 6	11 + 0 = 11	12 + 0 = 12	12 + 5 = 17	12 + 5 = 17	6 + 7 = 13
12 + 5 = 17	11 + 7 = 18	11 + 7 = 18	12 + 5 = 17	11 + 7 = 18	14 + 3 = 17	14 + 6 = 20
14 + 3 = 17	14 + 3 = 17	14 + 6 = 20	13 + 4 = 17	13 + 4 = 17	14 + 6 = 20	13 + 4 = 17
13 + 4 = 17	6 + 7 = 13	13 + 4 = 17	11 + 7 = 18	14 + 6 = 20	12 + 5 = 17	14 + 6 = 20

go to page 60, E

C 15 + 2 = 17 9 + 7 = 16 15 + 3 = 18 14 + 4 = 18 15 + 4 = 19 13 + 6 = 19 14 + 5 = 19

6 or 7 correct, go to E; 5 or less, go to D

D

14 + 4 = 18	14 + 4 = 18	15 + 2 = 17	14 + 4 = 18	15 + 2 = 17	14 + 5 = 19	14 + 5 = 19
15 + 2 = 17	13 + 6 = 19	14 + 4 = 18	14 + 6 = 20	14 + 5 = 19	13 + 6 = 19	13 + 6 = 19
15 + 3 = 18	15 + 3 = 18	15 + 4 = 19	15 + 3 = 18	15 + 4 = 19	9 + 7 = 16	9 + 7 = 16
13 + 6 = 19	14 + 5 = 19	9 + 7 = 16	13 + 6 = 19	9 + 7 = 16	15 + 3 = 18	15 + 4 = 19

go to page 61, A

E

Find the total of 6 and 7 13

Find the total of (2 × 3) + 1 7

Find the total of (4 × 3) + 2 14

8 minus 6 = 2 9 minus 7 = 2

Subtract 9 from 12 3 Subtract 7 from 11 4

Which number is 3 less than 10? 7

Which number is 5 greater than 9? 14

What is the total of 3 + 2 + 4? 9

What is the total of 6 + 3 + 2? 11

What is the total of 7 + 0 + 4? 11

8 + 3 minus 4 = 7 13 minus 7 = 6

Subtract 5 from 12 7

Which number is 5 less than 11? 6

Which number is 7 greater than 11? 18

go to page 61, C

A $12 + 2 = 14$ $11 + 6 = 17$ $13 + 2 = 15$ $11 + 3 = 14$ $9 + 5 = 14$ $14 + 1 = 15$ $8 + 7 = 15$

6 or 7 correct, go to page 58, E; 5 or less, go to B

B $12 + 2 = 14$ $12 + 2 = 14$ $13 + 2 = 15$ $12 + 2 = 14$ $13 + 2 = 15$ $13 + 2 = 15$ $14 + 1 = 15$

$11 + 6 = 17$ $11 + 6 = 17$ $11 + 3 = 14$ $11 + 6 = 17$ $11 + 3 = 14$ $11 + 3 = 14$ $11 + 6 = 17$

$9 + 5 = 14$ $9 + 5 = 14$ $12 + 2 = 14$ $9 + 5 = 14$ $9 + 5 = 14$ $13 + 2 = 15$ $9 + 5 = 14$

$8 + 7 = 15$ $8 + 7 = 15$ $8 + 7 = 15$ $11 + 6 = 17$ $8 + 7 = 15$ $9 + 5 = 14$ $8 + 7 = 15$

$9 + 5 = 14$ $13 + 2 = 15$ $12 + 2 = 14$ $8 + 7 = 15$ $11 + 3 = 14$ $14 + 1 = 15$ $11 + 6 = 17$

go to page 58, E

C $12 + 3 = 15$ $13 + 5 = 18$ $9 + 6 = 15$ $11 + 5 = 16$ $14 + 2 = 16$ $12 + 6 = 18$ $14 + 3 = 17$

6 or 7 correct, go to page 59, A; 5 or less, go to D

D $14 + 2 = 16$ $12 + 3 = 15$ $12 + 3 = 15$ $13 + 5 = 18$ $12 + 3 = 15$ $13 + 5 = 18$ $11 + 7 = 18$

$14 + 3 = 17$ $12 + 6 = 18$ $12 + 6 = 18$ $14 + 3 = 17$ $14 + 3 = 17$ $12 + 6 = 18$ $12 + 6 = 18$

$14 + 2 = 16$ $12 + 3 = 15$ $9 + 6 = 15$ $9 + 6 = 15$ $13 + 5 = 18$ $9 + 6 = 15$ $9 + 6 = 15$

$13 + 5 = 18$ $14 + 3 = 17$ $11 + 5 = 16$ $11 + 5 = 16$ $9 + 6 = 15$ $11 + 5 = 16$ $12 + 6 = 18$

go to page 59, A

E $6 + 7 = 13$ $13 + 4 = 17$ $12 + 0 = 12$ $14 + 3 = 17$ $11 + 7 = 18$ $12 + 5 = 17$ $14 + 6 = 20$

6 or 7 correct, go to page 59, C; 5 or less, go to F

F $13 + 4 = 17$ $13 + 4 = 17$ $14 + 3 = 17$ $14 + 6 = 20$ $14 + 6 = 20$ $14 + 3 = 17$ $14 + 6 = 20$

$12 + 5 = 17$ $12 + 5 = 17$ $14 + 6 = 20$ $13 + 4 = 17$ $11 + 0 = 11$ $12 + 0 = 12$ $14 + 3 = 17$

$11 + 7 = 18$ $11 + 7 = 18$ $12 + 5 = 17$ $11 + 7 = 18$ $14 + 3 = 17$ $14 + 6 = 20$ $8 + 0 = 8$

$14 + 3 = 17$ $7 + 6 = 13$ $13 + 4 = 17$ $14 + 6 = 20$ $12 + 5 = 17$ $11 + 7 = 18$ $12 + 5 = 17$

go to page 59, C

A $15 + 2 = 17$ $13 + 6 = 19$ $15 + 3 = 18$ $8 + 7 = 15$ $14 + 4 = 18$ $15 + 4 = 19$ $14 + 5 = 19$

6 or 7 correct, go to page 59, E; 5 or less, go to B

B

$14 + 4 = 18$	$14 + 4 = 18$	$15 + 3 = 18$	$14 + 5 = 19$	$14 + 5 = 19$	$13 + 6 = 19$	$13 + 6 = 19$
$9 + 7 = 16$	$9 + 7 = 16$	$15 + 2 = 17$	$9 + 7 = 16$	$15 + 2 = 17$	$15 + 3 = 18$	$15 + 2 = 17$
$15 + 3 = 18$	$15 + 3 = 18$	$13 + 6 = 19$	$13 + 6 = 19$	$14 + 4 = 18$	$14 + 4 = 18$	$13 + 6 = 19$
$14 + 4 = 18$	$15 + 2 = 17$	$9 + 7 = 16$	$15 + 4 = 19$	$14 + 5 = 19$	$15 + 4 = 19$	$15 + 3 = 18$
$15 + 4 = 19$	$13 + 6 = 19$	$15 + 2 = 17$	$14 + 4 = 18$	$15 + 3 = 18$	$9 + 7 = 16$	$14 + 5 = 19$
$9 + 7 = 16$	$15 + 2 = 17$	$13 + 6 = 19$	$15 + 3 = 18$	$14 + 5 = 19$	$15 + 4 = 19$	$13 + 6 = 19$
$15 + 2 = 17$	$8 + 7 = 15$	$14 + 5 = 19$	$15 + 4 = 19$	$14 + 4 = 18$	$13 + 6 = 19$	$15 + 3 = 18$

go to page 59, E

C **Speed practice:**

$2 + 3 = 5$	$3 \times 2 = 6$	$4 \times 3 = 12$	$2 \times 4 = 8$	$2 + 4 = 6$	$7 - 2 = 5$	$5 - 3 = 2$
$7 - 4 = 3$	$7 - 3 = 4$	$3 + 5 = 8$	$4 + 7 = 11$	$12 \div 2 = 6$	$12 \div 3 = 4$	$16 \div 4 = 4$
$6 + 0 = 6$	$8 - 0 = 8$	$0 \times 4 = 0$	$0 \times 6 = 0$	$8 - 5 = 3$	$9 - 6 = 3$	$9 - 3 = 6$
$15 \div 5 = 3$	$20 \div 4 = 5$	$7 + 5 = 12$	$5 + 7 = 12$	$3 \times 3 = 9$	$2 \times 6 = 12$	$3 \times 4 = 12$
$9 - 5 = 4$	$9 - 4 = 5$	$10 - 3 = 7$	$18 \div 3 = 6$	$18 \div 6 = 3$	$24 \div 4 = 6$	$25 \div 5 = 5$
$8 + 3 = 11$	$3 + 8 = 11$	$4 + 7 = 11$	$9 - 2 = 7$	$10 - 6 = 4$	$6 + 7 = 13$	$11 - 4 = 7$
$12 \div 4 = 3$	$20 \div 5 = 4$	$3 \times 6 = 18$	$4 \times 4 = 16$	$4 \times 6 = 24$	$11 - 3 = 8$	$11 - 8 = 3$
$5 \times 3 = 15$	$5 \times 0 = 0$	$6 \times 0 = 0$	$8 + 0 = 8$	$7 - 0 = 7$	$7 - 7 = 0$	$6 \times 4 = 24$
$8 + 7 = 15$	$9 + 6 = 15$	$6 \times 5 = 30$	$24 \div 6 = 4$	$30 \div 5 = 6$	$12 - 4 = 8$	$12 - 8 = 4$
$12 - 3 = 9$	$6 \times 6 = 36$	$11 + 7 = 18$	$11 - 6 = 5$	$8 + 7 = 15$	$12 - 7 = 5$	$36 \div 6 = 6$
$20 \div 5 = 4$	$9 - 5 = 4$	$4 + 7 = 11$	$7 + 5 = 12$	$12 \div 4 = 3$	$16 \div 4 = 4$	$11 - 3 = 8$
$7 + 3 = 10$	$5 \times 3 = 15$	$36 \div 6 = 6$	$5 \times 6 = 30$	$6 \times 4 = 24$	$3 \times 6 = 18$	$8 + 3 = 11$

go to page 62, A

N.B. Pupils may improve speed by returning to unused sections at any opportunity during the next few weeks.

Work these sums as quickly and carefully as you can:

A

$3 + 1 = 4$ $4 + 3 = 7$ $2 + 0 = 2$ $4 + 4 = 8$ $0 + 5 = 5$ $3 + 5 = 8$ $7 + 3 = 10$

$4 + 5 = 9$ $5 + 6 = 11$ $6 + 7 = 13$ $8 + 5 = 13$ $9 + 7 = 16$ $10 + 4 = 14$ $11 + 3 = 14$

$8 + 6 = 14$ $9 + 7 = 16$ $10 + 6 = 16$ $11 + 7 = 18$ $12 + 3 = 15$ $13 + 5 = 18$ $14 + 6 = 20$

B

$1 - 1 = 0$ $3 - 2 = 1$ $4 - 4 = 0$ $5 - 3 = 2$ $6 - 4 = 2$ $6 - 0 = 6$ $8 - 8 = 0$

$5 - 0 = 5$ $6 - 3 = 3$ $8 - 5 = 3$ $9 - 4 = 5$ $7 - 6 = 1$ $9 - 7 = 2$ $12 - 4 = 8$

$10 - 8 = 2$ $11 - 4 = 7$ $12 - 7 = 5$ $10 - 6 = 4$ $12 - 3 = 9$ $11 - 8 = 3$ $12 - 9 = 3$

C

$2 \times 1 = 2$ $2 \times 2 = 4$ $2 \times 0 = 0$ $3 \times 3 = 9$ $2 \times 4 = 8$ $5 \times 2 = 10$ $3 \times 4 = 12$

$2 \times 6 = 12$ $4 \times 0 = 0$ $5 \times 1 = 5$ $3 \times 5 = 15$ $4 \times 4 = 16$ $4 \times 6 = 24$ $6 \times 3 = 18$

$4 \times 5 = 20$ $6 \times 2 = 12$ $3 \times 6 = 18$ $5 \times 5 = 25$ $6 \times 4 = 24$ $5 \times 6 = 30$ $6 \times 6 = 36$

D

$2 \div 2 = 1$ $3 \div 3 = 1$ $4 \div 2 = 2$ $6 \div 3 = 2$ $8 \div 4 = 2$ $9 \div 3 = 3$ $12 \div 6 = 2$

$10 \div 2 = 5$ $10 \div 5 = 2$ $12 \div 3 = 4$ $15 \div 5 = 3$ $12 \div 4 = 3$ $18 \div 3 = 6$ $16 \div 4 = 4$

$15 \div 3 = 5$ $20 \div 5 = 4$ $24 \div 6 = 4$ $18 \div 6 = 3$ $24 \div 4 = 6$ $30 \div 5 = 6$ $36 \div 6 = 6$

E

$4 + 0 = 4$ $2 + 3 = 5$ $6 \div 2 = 3$ $12 \div 2 = 6$ $2 \times 3 = 6$ $5 - 2 = 3$ $6 - 3 = 3$

$3 \times 4 = 12$ $2 \times 0 = 0$ $8 - 5 = 3$ $1 - 0 = 1$ $3 + 7 = 10$ $4 + 6 = 10$ $2 \times 6 = 12$

$7 - 4 = 3$ $6 + 7 = 13$ $3 \times 5 = 15$ $9 - 9 = 0$ $20 \div 5 = 4$ $4 \times 4 = 16$ $10 - 7 = 3$

$12 \div 6 = 2$ $3 \times 0 = 0$ $13 + 6 = 19$ $10 - 4 = 6$ $4 \times 3 = 12$ $25 \div 5 = 5$ $5 \times 3 = 15$

$11 + 7 = 18$ $18 \div 6 = 3$ $11 - 5 = 6$ $6 \times 3 = 18$ $14 + 5 = 19$ $30 \div 5 = 6$ $9 - 6 = 3$

$6 \times 4 = 24$ $12 - 8 = 4$ $4 \times 5 = 20$ $36 \div 6 = 6$ $12 - 7 = 5$ $6 \times 6 = 36$ $24 \div 6 = 4$

PROGRAMMED ARITHMETIC WORKBOOKS

One, two and accompanying answer books